No. 127

W. Elliot Woodward's

FORTY-EIGHTH SALE.

THE

Stone Age

IN

America & Europe.

The Ralston Collection.

JUNE 27-28, 1882.

Pre-historic Man.

CATALOGUE

OF

THE COLLECTION

OF THE LATE

PROF. J. GRIER RALSTON,

ILLUSTRATING

The Stone Age

IN

AMERICA AND EUROPE.

To be Sold by Auction,

By Messrs. BANGS & CO.,

739 & 741 Broadway, New York City,

On TUESDAY and WEDNESDAY, JUNE 27 and 28, 1882.

GOODS ON EXHIBITION ON MONDAY, JUNE 26, AT 10 O'CLOCK, A. M., AND THE SALE WILL COMMENCE EACH DAY AT 2 O'CLOCK, P. M. ORDERS FOR THE SALE WILL BE EXECUTED BY THE AUCTIONEERS AND BY ALL COIN DEALERS.

Catalogue by W. Elliot Woodward.

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PREFACE.

THE archæological objects enumerated in the following catalogue, are nearly all selected specimens from the Collection of Prof. J. Grier Ralston, late Principal and Proprietor of the Oakland Female Institute at Norristown, Pennsylvania.

The Museum of Dr. Ralston was of great extent, and varied in its character; it comprised not alone the work of prehistoric man in both hemispheres, but was also of great extent and richness in Minerals and Shells and Coins and Medals. In all departments Dr. Ralston sought and obtained the very best examples that could be procured, and his whole collection was characterized by almost an entire absence of broken or in any way defective objects.

In the department here catalogued, it will be seen that almost every known variety of prehistoric stone implement found in the United States is included, and the stone and flint objects found in the North of Europe are equally well represented; it may indeed be doubted if any private collection in the country is equally rich in this specialty. I have seen a number of collections, and have handled several, but have never seen or handled one which, for perfection of quality, surpassed the one under consideration; indeed, amongst the many thousands of pieces in the original and entire collection, scarcely any were defective. It is a subject of regret that I am unable so to describe the various objects of European origin, especially, as to give a fair idea of their condition and appearance.

Collectors who have seen the Jenison Catalogue, will no doubt be surprised to find a number of Mr. Jenison's pieces included in this; a brief explanation is perhaps required. On the eve of that sale, one Talbot, who does business at Sioux City, Iowa, telegraphed me to buy from the Jenison Collection one hundred and fifty dollars' worth of the finest objects in the sale. I executed his order to the best of my ability, but found the amount of the purchase to be about $215.00. The goods were at once sent to the purchaser, with the request that he would select $150 worth and return the remainder. They were forwarded in June. July 9th Mr. Talbot wrote, promising to pay for them on their arrival. On learning from the Auctioneers that they had not been paid for at the end of July, I wrote to Mr. Talbot and continued to write to him at short intervals, but received no response from him

till October 9th. At the date named he wrote, requiring a statement as to the finding place of each object. As stated in the catalogue, all were from Michigan, and of most of them, found many years ago no particulars were recorded. This fact I explained, and Mr. Talbot then decided to return the goods, which he did on the 21st of November.

Some time in December, long after I had paid the owner for them, they reached me, placed in the box in the most careless manner, with no adequate protection from injury, and with a bill for transportation added to their cost. After I had written on the subject some five or more letters, Mr. Talbot wrote me, "I have repeatedly written you," etc. Mr. Talbot keeps a clerk, and divides his business into departments which he letters from A to X, reminding one of the water-tight compartments in a Cunard Steamer: the compartments in the Cunarder it is understood are intended to prevent the craft from sinking when partially waterlogged. Mr. T. requests his correspondents to address their letters, according to the nature of their business, to the different letters. As no one of the departments is mentioned as specially devoted to the payment of bills, my letters probably failed to receive attention for want of a special department.

Now that the transaction is fully closed, I can best illustrate my feelings by telling a story.

Once upon a time, a colored preacher held forth to a large congregation, and at the end of the services the hat was passed around for a contribution. It came back empty; the preacher turned it bottom upwards over the desk, to show that it contained nothing, and raising his eyes heavenward, reverently exclaimed, "I bress de Lord dat I got my hat back from dis congregation."

This story reminds me of another. A stranger called at a wayside store and ordered three cents' worth of crackers and herrings. They were placed before him; he said, "I have changed my mind; I wish you would take them back and give me three cents' worth of rum instead." The rum disappeared at a gulp; the stranger about to depart, was asked to pay for the rum; he replied, "I have paid for it. I gave you the crackers and herrings." "But," said the merchant, "you did not pay for them." "True," said the stranger, "but I gave them back, you would not have me pay for them and give them back too, would you?" whereupon he went his way; the trader scratched his head, and after a moment's thought remarked to a by-stander, "It may be all right, but I'll be—blanked—if I want any more such custom." These stories have no moral, but their application to my case is obvious.

CATALOGUE.

THE STONE AGE.

THE UNITED STATES.

SPEAR HEADS AND ARROW POINTS.

The lots following, from 1 to 142 inclusive, are, with scarcely an exception, fine to perfection; as a rule, every imperfect piece has been rejected. In the collection will be found specimens illustrating nearly every form known in this country, in nearly every material ever used for their fabrication, and from localities widely different. Many of the lots are mounted, and such are designated by the word Card.

1 Arrow and Spear Points from New England, of quartz, jasper, slate, etc.; a great variety in form and all perfect. Card. 14 pieces.

I have had many thousands of New England arrow and spear points, and I doubt if a selection like this could have been made from the entire number.

2 Spear Head, Mass.; leaf-shape, very fine. 4½ x 1¾ in.

3 Arrow Points, Mass., Conn., and N. Y.; white quartz, jasper, etc. Card. 26 pieces.

4 Spear and Arrow Points, Conn.; large and small. Card, 9 pieces.

5 Spear and Arrow Points, Conn.; variety in form and size, several large, one of rose quartz. Card. 16 pcs.

6 Spear and Arrow Points, Conn.; great variety, one long and very thick, two of yellow quartz. Card 11 pcs.

7 Spear and Arrow Points, Conn.; one of the former shield-shape, fine workmanship, and one of the latter a war point in white quartz, both remarkable specimens for the locality. Card. 14 pieces.

8 Spear Head, Conn.; yellow quartz, uncommon form and material. 4 x $1\frac{3}{4}$.

9 Spear and Arrow Points, N. Y., Tenn., Penn.; some remarkable forms. Card. 18 pieces.

10 Spear Points from different States, mostly southern, fine material and work. Card. 11 pieces.

11 Spear and Arrow Points, Northern New Jersey; all different types. 5 pieces.

12 War Points, black stone and quartz: Northern N. J. 19 pieces.

13 Arrow Points, Northern N. J.; leaf shape, jasper quartz, etc., rare form. 8 pieces.

14 Arrow Points, Pa.; white quartz: a beautiful selection. Card. 17 pieces.

15 Spear Points, Montgomery Co., Pa.: one a broad, barbed arrow point of white quartz; unlike any other that I have seen. Card. 12 pieces.

16 Arrow Points, Pa.; of small size for Pa. points. Card. 22 pieces.

17 Arrow Points, Pa.; one drill-shape, medium size. Card. 18 pieces.

18 Spear Point, Pa.: reddish quartz, rounded point. $2\frac{1}{2}$ x $1\frac{1}{2}$.

19 Spear and Arrow Points, Chester Co., Pa.: one thin at the base, one broad and barbed. Card. 5 pieces.

20 Spear Heads, Montgomery Co., Pa. $4\frac{1}{2}$ in. long. Card. 2 ps.

21 Spear Points, Montgomery Co., Pa.: one quartz arrow point of very uncommon form. Card. 16 pieces.

22 Long Spear Heads, Chester Co., Pa. $4\frac{1}{2}$ in. Card. 2 pcs.

23 Arrow Points, Pa.: medium size, one of leaf form, one of rose quartz. Card. 15 pieces.

24 Large Spear Head, Chester Co., Pa. $4\frac{1}{2}$ x $2\frac{1}{2}$. Card.

25 Spear Head, Montgomery Co., Pa. 5 x $2\frac{1}{4}$. Card.

26 Arrow Point, Norristown, Pa.; medium and large size. Card. 20 pieces.

27 Spear Points, medium size, near Norristown, Pa. Card. 27 pieces.

28 Spear Points, Montgomery Co., Penn.; one with notched base, and one serrated and of large size. Card. 3 pcs.

29 Arrow Points, Montgomery Co., Penn.; white and rose tinted quartz. Card. 10 pieces.

30 Spear Heads, Montgomery Co., Penn.; a remarkable lot, one of jasper, long, with notched base, one white quartz, uncommon size, one somewhat dirk form, and one approaching a drill-shape. Card. 6 pieces.

31 Arrow Points, Chester, Co., Penn.; white, smoky and rose quartz, most desirable lot. Card. 14 pieces.

32 Spear and Arrow Points, Chester Co., Penn.; mostly quartz and of large size. Card. 8 pieces.

33 Spear and Arrow Points, Chester Co., Penn.: a remarkable lot. Card. 9 pieces.

34 Narrow Spear Points, usually called fish spears, Montgomery Co., Penn.; quartz and slate. Card. 6 pcs.

35 Spear Points, Montgomery Co., Penn.; nearly lozenge shape, medium size. Card. 5 pieces.

36 Arrow Points, Chester Co., Penn.; selected for variety of form. Card. 6 pieces.

37 Arrow Points, banks of the Schuylkill, Pa.; quartz, etc. Card. 7 pieces.

38 Spear Points, Montgomery Co., Pa.; quartz and slate. Card. 8 pieces.

39 Arrow Points, Montgomery Co., Pa.; though all are fine, some show the weathering of ages. Card. 16 pieces.

40 Arrow and Spear Points, Norristown, Pa. Card. 7 pc.

41 Arrow and Spear Points, Chester Co., Pa.; quartz and slate.

42 Arrow Points, &c., Clinton Co., Pa.; two war points of fine material, four spear points, two of which are of remarkable form, and one of the finest drills that I have ever seen. Card. 7 pieces.

43 Arrow Points, near Lock Haven, Pa.; very fine, and of uncommon material for the locality. Card. 8 pieces.

44 Arrow Points, Montgomery Co., Pa.; quartz, jaspor, etc., great variety. Card. 16 pieces.

45 Arrow Points, near Norristown, Pa.: leaf-shape, barbed, etc. 21 pieces.

46 Arrow Points, Montgomery Co., Penn.: white quartz. Card. 15 pieces.

47 Arrow Points, same locality: white quartz, small size, extra quality. Card. 14 pieces.

48 Arrow Points, Eastern Pa.: large size, variety in form and material. Card. 16 pieces.

49 Arrow Points, Norristown, Penn.: very ancient Card 6 pieces.

50 Large Spear Heads, banks of the Schuylkill, Norristown, Pa. Card. 2 pieces.

51 Arrow Points, near Lock Haven, Pa.; a most uncommon lot, one shaped like a broad dagger with a short handle. Card. 7 pieces.

52 Rotary Spear Head, Conn; yellow quartz. 3¾ x 1¼ in.

53 Slate Spear Head, Wyoming Valley, Pa.: triangular, barbed, of uncommon form and size. 5 x 2½.

54 Elliptical Spear Head, Norristown, Pa. 4 x 1 in.

55 Spear and Arrow Points, bank of the Schuylkill, Penn.: one spear point rotary and of large size. Card. 5 pcs.

56 Arrow Points, Lancaster Co., Pa., from an island in the Susquehanna: rose quartz. Card. 10 pieces.

57 Arrow Points, Chester Co., Pa.: triangular, barbed, serrated, shield-form, etc.: large and small. 31 pieces.

58 Spear Points, same location; much weathered, but very fine. 13 pieces.

59 Arrow Points made by Prof. Ralston: two of agate, one of chalcedony, three of white and one of reddish pink colored quartz. Mr. Ralston showed great taste in selecting materials and skill in workmanship, still though he had the advantage of better tools, his arrow points are not quite up to the Indian standard; *a most rare lot.* 7 pieces.

60 Rotary Triangular Spear Head, Pa. 3½ x 1¾.

61 Notched Spear Head, Pa. 3 x 1¾.

62 Semi-elliptical Spear Head, with stem, Pa. 3¼ x 1½.

63 Long, Narrow Spear Head, Pa. 4½ x 1⅕.

64 Curved Spear Head, Pa. 3½ x 1½.

65 War Points, Pa.: mostly of quartz, some of feldspar: a beautiful selection, and the points of *rare* form. 36 pieces.

66 Arrow Points, Pa.; white quartz, some transparent, mostly notched and with stems. 38 pieces.

67 Leaf-shape Arrow Points, Pa.: of white, rose and transparent quartz, one of jasper, of unusual size: the leaf-shape is *rare*. 13 pieces.

68 Arrow Points, Pa.: quartz, rounded base, *rare* form. 8 pieces.

69 Arrow Points, Pa.: notched and with stems, white and ferruginous quartz, one of chalcedony and one of jasper. 19 pieces.

70 Arrow Points, Chester Co., Pa.: large size, nearly all of milky quartz, one prettily striped. 18 pieces.

71 Spear Head, Pa.: chalcedony, very handsome. 5¾ x 1⅜.

72 Spear Head, Pa.; same material, curiously veined. 3¾ x 1½.

73 Spear Point, Pa.: tinted quartz. 3¼ x 1¼.

74 Spear Point, Pa.; mottled chalcedony, very handsome material. 3¼ x 1¼.

75 Spear Point, Pa.; similar material. 3½ x 1¼.

76 Spear Point, Pa.; a most singular form, being curved in the line of the surface and the edge. 4 x 1½.

77 Spear Point, Pa.; of light sandstone, one side formed by removing three large flakes from end to end, very remarkable. 3 x 1½.

78 Spear Points, Pa.; mostly tinted quartz. 10 pieces.

79 Long, narrow Spear Head with serrated edges, Pa.; *rare form*. 5 x 1.

80 Spear Head, Pa.; rose quartz. 3 x 1¼.

81 Spear Head, Pa.; slate. 5¼ x ½.

82 Spear Head, Pa.; elliptical. 4 x 1¼.

83 Spear and Arrow Points, Philadelphia, Pa.; three triangular and of large size. Card. 7 pieces.

84 Spear and Arrow Heads, O.; large size. Card. 5 pieces.

85 Arrow Points, O.; a great variety, quartz, jasper, etc.; 2 war points, 2 serrated and with bifurcated stems, also 2 very fine drills. Card. 14 pieces.

86 Arrow Points, O.; another nice assortment. Card. 10 ps.

87 Spear Points, O.; broad, narrow, barbed, serrated, leaf-shaped, etc.; an excellent selection. 11 pieces.

88 Spear Point, O.; another fine lot. 16 pieces.

89 Arrow Points, O.; jasper, quartz, etc.; some serrated. 20 pieces.

90 Spear Point, O.; black stone. 4 x 1¼.

91 Spear Point, O.; dark material, curved. 3¼ x 1.

92 Spear Point, O.; semi-elliptical, rounded base. 3¼ x 1¼.

93 Spear Point, O.; similar form. 3¼ x 1¼.

94 Broad Spear Point, O.; broad stem and long barbs. 2½ x 2.

95 Triangular Spear Point, O.; chalcedony. 2¼ x 2.

96 Ovate Spear Point, O.; very thin. 2½ x 1½.

97 Barbed Spear Point, O. 2¼ x 1½.

98 Spear Point, O.; broad, with expanding base. 3¼ x 1¼.

99 Spear Point, O.; barbed, rounded base. 3¼ x 1¼.

100 Triangular, barbed and stemmed Spear Point, O. 2¾ x 1¼.

101 Rotary, barbed Spear Head, O. 2¼ x 1¼.

102 Spear Head with rounded base, O. 3 x 1¼.

103 Curious curved Spear Point, O; sides irregular. 3 x 2.

104 Small semi-elliptical Spear Point, O. $2\frac{1}{2}$ x $1\frac{1}{4}$.

105 Ovate, pointed Spear Head, O. $2\frac{3}{4}$ x $1\frac{1}{2}$.

106 Barbed Spear Point with bifurcated stem, O. $2\frac{1}{2}$ x $1\frac{1}{2}$.

107 Spear Point, barbed and with stem. $3\frac{3}{4}$ x $1\frac{1}{4}$.

108 Spear Point, narrow and curved, O. $3\frac{1}{2}$ x $1\frac{1}{8}$.

109 Spear Point, O.; nearly elliptical. $4\frac{1}{2}$ x $1\frac{1}{2}$.

110 Spear Point, O.; square base. $3\frac{1}{2}$ x $1\frac{1}{2}$.

111 Spear Point, O.; shield-shape. 3 x $1\frac{3}{4}$.

112 Spear Point, O.; sides nearly parallel. $3\frac{1}{2}$ x $1\frac{1}{2}$.

113 Rotary Spear Head, O. 4 x $1\frac{1}{2}$.

114 Barbed Spear Point with broad base, O. $4\frac{1}{2}$ x 2.

115 Spear Head with rounded base, O. $2\frac{1}{2}$ x $1\frac{3}{4}$.

116 Long Spear Head, notched, with expanding base, O. $3\frac{7}{8}$ x $1\frac{1}{4}$.

117 Spear Head; notched edges, curved. $3\frac{1}{2}$ x $1\frac{1}{4}$.

118 Rotary Spear Head, notched, and with broad base, O.: an uncommon example. $2\frac{5}{8}$ x $1\frac{1}{2}$.

119 Spear Head, O.; of striped agate. $2\frac{3}{4}$ x $1\frac{1}{8}$.

120 Spear Head, O.; sloping base. $2\frac{3}{4}$ x $1\frac{1}{4}$.

121 Spear Head, O.: long stem. 3 x $1\frac{1}{2}$.

122 Spear Head, ovate, with flattened base, O. $3\frac{1}{4}$ x $1\frac{7}{8}$.

123 Spear Head, ovate, with square base, O. $3\frac{1}{4}$ x 2.

124 Spear Head; notched, with thin bifurcated base, a *rare form*. $2\frac{1}{4}$ x 1.

125 Spear Head, triangular, rotary, O. $2\frac{1}{2}$ x $1\frac{1}{2}$.

126 Spear and Arrow Heads, of striped jasper, O. 3 pieces.

127 Spear Head; barbed, with broad, expanding base, white, beautiful work and material. $3\frac{1}{2}$ x $1\frac{1}{2}$.

128 Spear Head with long stem, O. $4\frac{1}{2}$ x $1\frac{1}{2}$.

129 Spear Head; thick and narrow, rounded base, O. $3\frac{1}{2}$x$1\frac{1}{4}$.

130 Spear Head; semi-elliptical, deeply notched, with rounded base, very graceful in form. $4\frac{1}{2}$ x $1\frac{1}{2}$.

131 Spear Head: semi-elliptical, sharply barbed, with rounded stem, of elegant material and workmanship: one of the finest pieces in the sale. $3\frac{7}{8}$ x $2\frac{1}{2}$.

132 Spear Head, semi-elliptical, barbed, of reddish yellow chalcedony, O.: without exception the finest object of this kind that I have met with. 4 x 2.

133 Spear Head or Knife, O.; ovate. 3 x 2.

134 Curved, rotary Spear Head, O.: a most uncommon form. $3\frac{5}{8}$ x $1\frac{1}{2}$.

135 Spear Head, O.; unusually thick for its other dimensions. 2¼ x 1.

136 Spear Head, O.; serrated, with thin, expanding base, curved, a rare form. 3 x 1.

137 Spear Head, serrated, barbed, O. 2½ x 1¼.

138 Spear Head of mottled stone, O.; triangular, with rounded base. 4⅛ x 2½.

139 Spear Head, O.; notched, indented base. 3½ x 1¼.

140 Spear Head, O.; barbed, broad base. 3 x 1½.

141 Spear Head, O.; long, with rounded base, rotary. 4½ x 1½

142 Spear Head or Dagger, O.; a remarkable implement: edges beveled, and regularly expanding from the point to near the base, thence curving inward, and then outward, to meet the base, which is square. 6½ x 2¼.

CELTS, ETC.

The objects following are designated by archæologists and collectors, as Ungrooved Axes, Tomahawks, Chisels, Wedges, Fleshers, Skinners, Peelers, etc. Confessing my inability to determine to which of these several classes certain objects belong, I prefer to call them Celts, and leave the ultimate classification to the purchasers. Like the Arrow Points, they are selected for perfection of condition, and though some are of rude workmanship, it will be seen that they are generally without a blemish.

143 Celt, Massachusetts; the side broken; a Massachusetts Celt is a rare object. 3½ x 1½.

144 Celt, Connecticut; granite, nicked at the side, but I think the imperfection was in the stone; thin with expanding edge. 4½ x 2½.

145 Celt, Conn.; the head shows marks of use; very fine. 4¼ x 2¼.

146 Celt, Conn.; rude, but perfect as when made. 8½ x 2½.

147 Celt, Conn.; rude, edge slightly chipped, otherwise perfect. 8 x 2¼.

148 Tomahawk, Branford, Conn.; fine and a rare form. 3½ x 2¼.

149 Celt, New Jersey; nearly triangular; very fine. 2¼ x 2.

150 Celt, N. J.; sandstone, in form approaching oval; fine. 2½ x 2.

151 Celt, Lehigh Valley, Pa.; nearly round, top slightly broken by use. 5 x 2.

152 Celt, Montgomery Co., Pa.: uncommonly fine. $3\frac{3}{8}$ x $1\frac{1}{4}$.

153 Celt, Lehigh Valley, Pa.; rude, but as perfect as when made. 6 x $2\frac{1}{2}$.

154 Celt, Lehigh Valley, Pa.; like the last, rude, but uninjured by age. $8\frac{1}{2}$ x $2\frac{1}{2}$.

155 Celt, Lehigh Valley, Pa.; rude. $4\frac{1}{4}$ x 2.

156 Celt; same locality, nearly round, head chipped by use. $5\frac{1}{2}$ x 2.

157 Celt, Ohio: very fine, almost polished. 4 x 2.

158 Celt, O.: of nearly square form, rounded head, granite; fine. $3\frac{3}{4}$ x $1\frac{1}{4}$.

159 Celt, O.; sides nearly parallel, top shows use by pounding. $4\frac{3}{4}$ x $1\frac{1}{4}$.

160 Celt, O.: in form approaching elliptical, edge oblique to the sides, very fine. $4\frac{1}{4}$ x $1\frac{7}{8}$.

161 Celt, O.; very fine, but both edge and top show signs of use. 7 x $3\frac{1}{4}$.

162 Celt, O.; an implement remarkable for its great size, weighing upwards of $5\frac{1}{2}$ lbs.: one of the largest and finest examples I have ever met with: perfect, top shows signs of use. $9\frac{1}{2}$ x $4\frac{1}{4}$.

163 Celt, O.: granite, perfect, head nearly pointed, extremely fine. $8\frac{1}{2}$ x $3\frac{1}{2}$.

164 Celt, O.; greenstone, nearly round, very fine. $6\frac{3}{4}$ x $1\frac{1}{4}$.

165 Celt, O.: the bevel mostly on one side, fine. *a rare form.* 4 x $2\frac{1}{4}$.

166 Celt, O.: slate, rude. $3\frac{3}{4}$ x 2.

167 Celt, Gallia Co., O.; small, good. $3\frac{1}{4}$ x $1\frac{1}{4}$.

168 Celt, O.; compact slate, fine. $3\frac{3}{4}$ x $1\frac{1}{4}$.

169 Celt, O.: granite, very old, fine. 4 x $2\frac{1}{2}$.

170 Celt, O.; round, shows marks of use, fine. $4\frac{1}{2}$ x $2\frac{1}{8}$.

171 Celt, O.: top nearly pointed, fine. $3\frac{3}{4}$ x 2.

172 Celt, O.: in form like the last. $3\frac{1}{4}$ x $2\frac{1}{4}$.

173 Celt, O.: in form nearly oval, fine. $4\frac{3}{4}$ x $2\frac{1}{2}$.

174 Celt, Meigs, O.; thick, but form like the last. $3\frac{1}{2}$ x 2.

175 Celt, O.: rude, perfect. 4 x 2.

176 Celt, O.; flats, parallel of dark stone: fine. $5\frac{1}{4}$ x 2.

177 Celt, O., top nearly pointed: very ancient. 5 x $2\frac{1}{2}$.

178 Celt, O.: the head broad and thin, an unusual form. $3\frac{1}{2}$ x $1\frac{3}{4}$.

179 Celt, O.: slate, oblong. $3\frac{1}{2}$ x $1\frac{5}{8}$.

180 Celt, O.; with expanding edge, uncommon form. $4\frac{1}{2}$ x 2.

181 Celt, O.; granite, thin and of large size; fine. 7 x 3½.

182 Celt, O.; oblong with edge slightly expanding, uncommon form; fine. 3¼ x 2.

183 Celt, O.; nearly triangular, dark granite; v. fine. 2¼ x 2.

184 Celt, Indiana; of peculiar form; the edge broadly expanding, the sides curved inward; fine, *very rare*. 5 x 2¼.

185 Celt, Ind.; granite, head nearly pointed; fine. 5¼ x 1¼.

186 Celt, Ind.; sides flat, top nearly pointed. 4¼ x 2.

187 Celt, Ind.; nearly square, with rounded head; fine. 3½ x 1¼.

188 Celt, Michigan; fine. 1 x 2¼.

189 Celt, Mich.; fine. 4 x 2¼.

190 Celt, Mich.; polished, a very fine implement and *rare*. 5½ x 2¼.

191 Celt, Mich.; large size and finely finished, of dark granite rock; perfect. 7 x 3¼.

192 Celt, Mich.; very fine. 6 x 2½.

193 Celt, Mich.; rounded head, very fine. 4¼ x 2½.

194 Celt, Mich.; basaltic rock, nearly black, polished and very fine. 4¼ x 2¼.

195 Celt, Mich.; edge broadly expanding, top nearly pointed, very fine. 5½ x 2½.

196 Celt, Mich.; thin, polished, very fine. 3¼ x 2.

197 Celt, West Virginia; oblong, polished, fine. 4½ x 2¼.

198 Celt, W. Va.; expanding edge, body nearly round and tapering, head very small, fine, and *rare form*. 7¼ x 2¼.

199 Celt, Madison's Mill, Warren Co., Kentucky; quartzite, chipped and polished, in workmanship resembles the Scandinavian implements, but unlike them in form, sides nearly parallel, fine, *rare*. 6¼ x 2½.

200 Celt, Tennessee; edge slightly chipped, very fine 4¼ x 2½.

201 Celt, Tenn.; body nearly round, edge slightly concave; very fine. 4½ x 2.

202 Celt, Tenn.; edge expanding, body round, top nearly pointed. 4 x 1¼.

203 Celt, Montgomery Co., Tenn., of very light material; fine. 5¼ x 2¼.

204 Celt, Turkey Cove, McDowell Co., North Carolina; this Celt in form and workmanship bears a striking resemblance to similar implements in the Latimer Collection from Porto Rico, now belonging in the Smithsonian Institution; very fine and *rare*. 6¼ x 2½.

205 Celt; from the same locality and of the same style of workmanship: fine. 5 x $2\frac{1}{8}$.

206 Celt, Arizona; nearly round, top pointed: very fine. $4\frac{3}{4}$ x 1.

207 Celt, Arizona; chipped; *rare*. $6\frac{1}{2}$ x $1\frac{1}{2}$.

208 Celt, Arizona; one flat concave, fine, *rare*. $4\frac{1}{2}$ x $1\frac{1}{4}$.

209 Celt, Arizona; nearly round, edge chipped. $5\frac{1}{4}$ x $1\frac{1}{8}$.

GOUGES AND ADZES.

These implements are of very uncommon occurrence outside of the limits of New England, though occasionally met with in other portions of the country; the gouge proper was evidently intended to be used in the hand, while the form of the adze makes it quite certain that it was intended to be hafted, with a handle at right angles or oblique to the plane of the object. The remark made by a recent writer, that these tools were without doubt used for tapping maple trees will have very little weight with those who know the difficulty of penetrating a rock maple; the usual condition of the tools, which is with sharp edge well defined, precludes the theory that they were put to any service requiring any great outlay of force.

210 Gouge, Maine: thick, the back convex. The form of this implement, whereby a powerful leverage can be gained, adapts it to use for prying, thereby splitting wood as well as cutting: granite, fine. $6\frac{1}{4}$ x 2.

211 Broad Gouge, Me.: the back with a longitudinal ridge extending nearly its entire length: *rare form*, fine. $6\frac{3}{4}$ x $2\frac{3}{8}$.

212 Gouge, Litchfield, N. H.; Head chipped, but fine. $4\frac{1}{2}$x2.

213 Gouge, N. H.; small and of superior workmanship: very fine. $2\frac{3}{4}$ x $1\frac{3}{8}$.

214 Gouge, N. H.: deeply grooved, groove extending the entire length; very fine. $3\frac{1}{4}$ x $1\frac{1}{4}$.

215 Gouge, Mass.: has been used with a hammer, top a little broken. $6\frac{1}{4}$ x $1\frac{3}{4}$.

216 Gouge, Mass.; back convex with longitudinal ridge; fine. $5\frac{1}{2}$ x $1\frac{3}{4}$.

217 Adze, Palmer, Mass.: back with two depressions for fastening to handle; fine. $6\frac{1}{4}$ x $2\frac{1}{4}$.

218 Adze, Mass.: grooved longitudinally and a groove around the implement for hafting; fine. $6\frac{1}{4}$ x $2\frac{1}{2}$.

219 Adze, Palmer, Mass.: gouge-form, grooved, with two elevations on the back: fine. 6 x $2\frac{1}{4}$.

220 Adze, Ludlow, Mass.; grooved. 9¼ x 2¼.

221 An implement approaching adze-form, but grooved for a handle, the groove at the present time showing plainly marks of wear, the end is so blunt that it could not have been used as a cutting tool, its form suggests that it might have been used as a hammer; undescribed so far as I am aware. 4½ x 2¼.

222 Adze, Mass.; doubly-grooved gouge-form, very thick; fine, *rare*. 8 x 2½.

223 Gouge, Connecticut; entire length concave, irregular in outline. 5¼ x 2.

224 Gouge, Bloomfield, Ct.; fine 4¼ x 2.

225 Gouge, Ct.; deeply grooved and nicely finished, the finest object of the sort in the collection. 4½ x 1¾.

226 Gouge, Ct.; sandstone; fine. 5¼ x 1¾.

227 Gouge, Ct.; compact slate; fine. 5 x 1½.

228 Adze, Ct.; gouge-form and grooved for a handle, edge narrowing; granite, fine, and a *very rare form*. 7 x 2½.

229 Adze, Ct.; doubly-grooved for handle; fine. 6 x 1¾.

230 Adze-Gouge, Ct.; concave, for half its length grooved for a handle; very fine. 5 x 1¾.

231 Adze-Gouge, Ct.; grooved for handle; finely wrought, nearly polished; extremely fine. 5 x 2.

232 Broad Gouge, Ohio; fine. 2¾ x 2¾.

233 Gouge, O.; but slightly concave; fine. 2¾ x 2.

234 Gouge, O.; nearly ovate, slightly concave. 2¾ x 1¾.

235 Gouge, O.; expanding edge, top nearly pointed. 3¼x1¾.

236 Gouge, Michigan; back convex; fine, *rare*. 6½ x 2¼.

237 Very broad Gouge, Mich.; finely finished; a *rare form*. 5½ x 2¾.

238 Axe-formed Adze, Mass.; the top flat, the bottom grooved near the head, longitudinal ridge extending nearly the whole length; fine and a most *rare form*. 4 x 2¾.

GROOVED AXES.

All the objects that follow under this head are selections from an immense number contained in the Ralston Collection, and comprise the very finest examples, illustrating locality, material, workmanship and form; with few exceptions they are perfect, and the few are admitted on account of some peculiarity of location or form.

239 Grooved Axe, N. H.; unusually small; fine and rare. 3 x 2¼.

240 Grooved Axe, Mass.; large size; in form an elongated hexagon, with groove about the middle; granite. 7x4½.

241 Grooved Axe, Mass.; edge approaching a point, head rounded, grooved only at the sides, rude workmanship but very fine. 5¾ x 3¾.

242 Grooved Axe, Springfield, Mass.; narrow point expanding towards the groove, which is near the head, the head much contracted; a *rare form*, fine. 9¼ x 3½.

243 Grooved Axe, Ct.; narrow, sides nearly parallel, groove near the head; very fine, showing marks of great antiquity, uncommonly large for the location. 8½ x 3¾.

244 Grooved Axe, Ct.; dark granitic rock, sides thin, oval in shape, perfect. 4½ x 2⅝.

245 Grooved Axe, Ct.; wedge-shape, groove broad, head narrowing, uncommon form; fine. 4¾ x 2½.

246 Grooved Axe, Ct.; a perfect implement of the rudest workmanship. 4½ x 3¼.

247 Grooved Axe, Bridgeport, Ct.; somewhat triangular in form, edge very narrow; fine. 4¼ x 2⅞.

248 Grooved Axe, Ct.; if possible more rude than No. 246, but like that, perfect. 6 x 3.

249 Grooved Axe, Orange Co., N. Y.; celt-form, with nearly parallel sides, unfinished above the groove; a remarkable specimen. 6 x 2¾.

250 Grooved Axe, New Jersey; edge rounded, head flat; fine. 7¼ x 4.

251 Grooved Axe, N. J.; sandstone, of superior finish, but very old; fine. 6 x 4.

252 Grooved Axe, N. J.; groove oblique to the head, a common form in Pa., but I think not common in N. J.; very fine. 7½ x 3½.

253 Grooved Axe, N. J.; of ferruginous stone, broad, deep groove; fine. 8 x 4½.

254 Grooved Axe, Pa.; deep groove, with large ridges above and below, one side concave, head flat, sides expanding towards the head, some fragments chipped from the edge have been neatly cemented in place. I have never seen a finer axe than this; of light gray material, resembling sandstone, weighs nearly 8 lbs. 9 x 4¾.

255 Grooved Axe, Pa.; sides nearly parallel, deep groove, oblique to the head, material like the last and of the same superior quality, perfect, weight nearly 7 lbs. 9 x 4¼.

256 Grooved Axe, Pa.; groove close to and parallel to the head, almost matches the two preceding in quality. 8 x 4½.

257 Grooved Axe, Pa.; groove oblique, edge rounded, very ancient and perfect. 7¼ x 3¼.

258 Grooved Axe, Pa.; sides nearly parallel, head contracted, deep, broad groove; very fine. 7½ x 3.

259 Grooved Axe, Springfield, Montgomery Co., Pa.; of granite, fine form and beautifully wrought, one side flat. 9½ x 4½.

260 Grooved Axe, Pa.; groove oblique to the head, and the implement curving inward, a form which, so far as I have seen, is peculiar to this State; very fine. 8¼x3½.

261 Grooved Axe from an island in the Susquehanna, Pa.; similar in form to the last, shows secondary working, but ancient, over much of its surface. 9 x 3½.

262 Grooved Axe from the same locality; has been reworked, in form resembling the last; very fine. 7½x3¼.

263 Grooved Axe, Chester Co., Pa.; groove oblique, sides expanding; granite, very fine. 6¼ x 3¼.

264 Grooved Axe, near Norristown, Pa.; light granite, thin, a handsome implement, fine. 5¼ x 3.

265 Grooved Axe, from an island in the Susquehanna; granite, fine. 5¼ x 3¼.

266 Grooved Axe, Spring Mill, Montgomery Co., Pa.; head much narrowed; fine. 9 x 4½.

267 Grooved Axe, North Coventry, Pa.; thin, deep groove near the head; very fine. 6¼ x 4½.

268 Grooved Axe, Pa.; very thick, deep groove, sides flat; fine. 5 x 2¼.

269 Grooved Axe, Chester Co., Pa.; oblong in form, thin, groove near the head; very fine. 5¼ x 3½.

270 Grooved Axe, Chester Co., Pa.; broad groove, expanding head; very fine, nearly polished. 5 x 3.

271 Grooved Axe, Chester Co., Pa.; of small size; fine. 3¼ x 2½.

272 Grooved Axe, Montgomery Co., Pa.; groove close to the head, sandstone; fine. 4¼ x 2¾.

273 Grooved Axe, Chester Co., Pa.; curved, with edge narrowing; fine, very ancient. 4½ x 2¼.

274 Grooved Axe; curved, head nearly pointed, a *cave form*, fine. 5 x 2½.

275 An object in form resembling a grooved axe, probably a sinker, Lehigh Valley, Pa. 4½ x 3.

276 Grooved Axe, Pa.; compact slate, fine. $5\frac{1}{4}$ x 3.

277 Grooved Axe, Ohio: oval in form, granite: very old, fine. 8 x $4\frac{1}{4}$.

278 Grooved Axe, O.: of dark-colored stone, remarkable for size, head flat, groove very broad and deep, edge narrowed, weighs nearly 11 lbs., edge a little chipped, but very fine. $9\frac{1}{4}$ x $6\frac{3}{4}$.

279 Grooved Axe, Ironton, O.: nearly round, an uncommon form; fine. $5\frac{3}{4}$ x $2\frac{1}{2}$.

280 Grooved Axe, O.; one side concave: very fine and evidently of great antiquity. $5\frac{3}{4}$ x $3\frac{3}{4}$.

281 Grooved Axe, Montgomery Co., O.: nearly triangular, deep groove near the head; fine. $5\frac{1}{4}$ x 4.

282 Grooved Axe, O.; sandstone, one side concave, deep groove, rounded head. The finest specimen that I have seen from this State: weight nearly 9 lbs., perfect. 9 x $5\frac{1}{4}$.

283 Grooved Axe, O.: in form approaching oval, groove near the middle: fine. $7\frac{1}{4}$ x 5.

284 Grooved Axe, O.: one side convex, the other nearly flat: granite, fine. 8 x $4\frac{3}{4}$.

285 Grooved Axe, O.; fine form, deep groove, flat head, a very superior implement. $6\frac{3}{4}$ x 5.

286 Grooved Axe, O.: of dark basaltic rock, very fine and perfect. $5\frac{1}{4}$ x $4\frac{3}{4}$.

287 Grooved Axe, O.; very broad groove extending entirely around; extremely fine. 6 x $3\frac{3}{4}$.

288 Grooved Axe, O.: one side concave, head rounded: granite, very fine. 8 x 4.

289 Grooved Axe, O.; in form ovoid: fine. $5\frac{1}{2}$ $3\frac{1}{4}$.

290 Grooved Axe, O.: fine. 5 x 3.

291 Grooved Axe, O.; granite, *rare form*, fine. 5 x $3\frac{1}{4}$.

292 Grooved Axe, Tennessee: long, narrow, one side flat: very fine. 8 x 3.

293 Grooved Axe, Tenn.: broad groove, one edge concave, sides nearly parallel. $6\frac{1}{2}$ x $2\frac{3}{4}$.

294 Grooved Axe, Tenn.: one side not grooved: fine. $4\frac{1}{4}$x$2\frac{3}{4}$.

295 Grooved Axe from near Clarksville, Tenn.: of workmanship resembling Nos. 246 and 248, but in perfect order, edge nearly pointed. $7\frac{1}{2}$ x $4\frac{1}{2}$.

296 Grooved Axe, Michigan: broad, deep, polished groove, with large ridge above and below, with sides and flats curving inward toward the edge and head, a remarkable form, the head a little broken, but in fine condition: *very rare*. $6\frac{3}{4}$ x 4.

297 Grooved Axe, Mich.: small size; fine. 4 x 2¼.

298 Grooved Axe, Mich.; light granite, in form oblong, fine. 4½ x 2¼.

299 Grooved Axe, Mich.; one side flat; very fine. 4½ x 2½.

300 Grooved Axe, Mitchell Co., N. Carolina; deep groove-head rounded; very fine. 6¼ x 4½.

301 Grooved Axe, McDowell Co., N. C.: the groove so deep that it cuts out nearly three-quarters of the substance, edge broken, otherwise fine, and an *extremely rare form*. 6½ x 3¾.

302 Grooved Axe, same locality: of curious, twisted form: very fine. 5¼ x 2½.

303 Grooved Axe, same locality; of bluish-mottled stone, rare material and unusual form. 4 x 3.

304 Grooved Axe, Arizona; head a little broken, substance resembles hematite. 6¼ 2¾.

305 Grooved Axe, Arizona; nearly round, material like the last. 4¼ x 2.

PERFORATED OBJECTS.

BANNER STONES, GORGETS, PENDANTS, AMULETS, ETC.

The nomenclature of this class of objects varies, amongst different collectors and writers, to such a degree, that it is difficult to adopt terms acceptable to all. For the winged, perforated objects sometimes called ceremonial axes, I have preferred the more usual term Banner Stones, for the symmetrical objects with two perforations, I have selected the term Gorgets, as preferable to any of the other names by which these things are called; for those with a single perforation, and evidently intended for suspension, I have followed those who have designated them as Pendants, preferring the name Plumb Bob for the objects sometimes called Pendants. The Amulets, under whatever name they might appear, would be recognized by their description. This explanation is for the guidance of those who, unable to view the objects, may order them from a distance.—*Jewett's Catalogue.*

306 Pendant, Michigan: form, an irregular triangle, with one of the angles rounded and brought to a sharp, cutting edge, perforation large, commenced from both sides: very fine. 4 x 2¼.

307 Pendant, Mich.: triangular, of ribbon-slate, perfect. 4 x 2¼.

308 Pendant, Mich.: dark, compact slate, nearly oblong, narrows at one end, small perforation, perfect. 3¼x1½.

309 Pendant, Mich.; slate: perforation near the centre: fine. $2\frac{1}{4}$ x $2\frac{1}{4}$.

310 Pendant, Ohio: slate: oblong, narrowing towards the upper end, both ends thin, brought to nearly a cutting edge, purple slate. $3\frac{1}{4}$ x $1\frac{3}{4}$.

311 Pendant, Mich.; slate: oblong, narrowing towards the top, large perforation, perfect. 4 x $1\frac{1}{2}$.

312 Gorget: slate: irregularly oval, one perforation near the end, the other more distant: fine. 3 x $1\frac{3}{4}$.

313 Pendant or Gorget, Pa.; slate: oblong, tapering towards the top, both ends rounded, doubly perforated; very fine. $2\frac{1}{2}$ x $1\frac{3}{8}$.

314 Pendant, Pa.: somewhat heart-shape perforation in the centre. $2\frac{1}{8}$ x $1\frac{5}{8}$.

315 Pendant, Mich.; probably an ear ornament, somewhat cylindrical, one end rounded, near the other the sides flattened, small perforation; a beautiful little object. $1\frac{1}{4}$ x $\frac{1}{2}$.

316 Gorget, Mich.; elliptical, with ends rounded, of handsome, mottled stone, finely finished and perfect. $3\frac{1}{2}$x$1\frac{1}{4}$.

317 Pendant, O.; semi-elliptical, with perforation at the broad end, ribbon-slate, unusual form: fine. $2\frac{1}{2}$ x $1\frac{1}{4}$.

318 Pendant, O.; oval, one end rudely wrought into a profile, perhaps, of some animal, perforation near the centre: a curious example and perfect. 4 x $2\frac{1}{4}$.

319 Square, thick, perforated object of soapstone, with the edges deeply notched as though filed. When received with a parcel of Indian relics from Arizona, I supposed this piece to be a mere curiosity, but I have within a few days seen similar ones described, and a high antiquity attributed to them. I regret that I am at this moment unable to refer to the account. $2\frac{1}{2}$ x $2\frac{1}{2}$ x $1\frac{1}{8}$.

320 Gorget, Mich.: elliptical, broken, showing about two thirds of the original object, has two perforations. $6\frac{1}{4}$ x $2\frac{1}{4}$.

321 Gorget, O.: thick lozenge shape, has not the perforations. 5 x 2.

322 An object which I am unable to classify: it is of dark stone, $4\frac{3}{4}$ in. long, $2\frac{5}{8}$ in. wide: near the top, which is almost a cutting edge, are two perforations: the opposite end, which is slightly gouge form, is sharpened to a knife edge: the instrument is highly finished, polished, in perfect condition, and certainly quite remarkable.

323 Banner Stone, Manasquan River, N. Y.: the enlarged portion through which the perforation passes flattened at one side, winged; *a rare form* and perfect. 4¼ x 2.

324 Banner Stone: form of a double-bladed axe with perforation through the centre; the hole shows the striæ very plainly, and a part of the original surface remains, though most of it has been *improved* by going over it with a coarse file; symmetrical and perfect. 3¾ x 1¼.

325 Banner Stone, Mich.: round, with pointed ends like the top of a crutch; symmetrical: of ribbon slate, and as perfect as when made. 4¼ x 1.

326 Banner Stone, Wyoming Valley, Pa.; semi-lunar: a peculiarity of this piece is that the hole tapers regularly from one end to the other: striped slate, perfect. 3¼ x 1⅞.

327 Banner Stone, Pa.: ovate, elongated, flattened, unfinished and perforation only commenced; very fine. 2⅝ x 1¼.

328 Gorget, O.; oblong, striped slate, two perforations; fine. 2⅞ x 1½.

329 Bird Stone or Amulet, Mich.: striped slate, the body and tail short, the head enlarged, has not the perforations usually found in these objects; beautifully finished and of *extraordinary rarity*. 3 x 1⅝.

330 Amulet, Mich.: in form semi-cylindrical: striped slate, finely wrought, having the two perforations that characterize these objects: a desirable specimen, though one end is slightly broken. 3⅛ x ⅞.

331 Amulet, Mich.; bird-shape, but the raised head is more like that of a seal than a bird, the tail broad and elevated: of beautiful striped slate, elegantly wrought directly across the grain; fine and *most rare*. 3⅛ x 1⅛.

334 Pear-shape Pendant, Mich.: of the same handsome material and elegantly wrought, like the amulets: equally *rare*. 2⅞ x 2¼.

DISCOIDAL STONES, PAINT CUPS, ETC.

335 Discoidal Stone, Ill.: dark color, doubly concave, edge rounded: fine. 2¼ x 1⅛.

336 Discoidal Stone, O.; beautifully wrought, sides convex. 2⅛ x 1.

337 Discoidal Stone, O.; both sides concave, concavity extending nearly to the edge, edge chipped: originally very fine. 2⅛ x ⅝.

338 Discoidal Stone, McDowell Co., N. C.; quartzite, sides plain or slightly convex. $2\frac{5}{8}$ x 1.

339 Discoidal Stone, Tenn.: handsome chocolate color, sides plain, finely wrought. $1\frac{3}{4}$ x $\frac{3}{4}$.

340 Discoidal Stone, Ill.; doubly concave; very fine. $2\frac{1}{2}$x1.

341 Discoidal Stone, O.: sides convex: very fine. $2\frac{3}{4}$ x $1\frac{1}{4}$.

342 Discoidal Stone, Ill.: sandstone. $2\frac{3}{8}$ x $\frac{3}{4}$.

343 Discoidal Stone, O.; doubly concave. 3 x $1\frac{1}{4}$.

344 Discoidal Stone, Ill.; doubly concave. $2\frac{1}{8}$ x 1.

345 Discoidal Stone, McDowell Co., N. C.: doubly convex, a piece chipped from the side, otherwise very fine. $2\frac{3}{8}$ x $\frac{3}{4}$.

346 Discoidal Stone, O.; double concave, sandstone. 2 x 1.

347 Discoidal Stone, O.; double convex, edge thin. $2\frac{3}{4}$ x $\frac{3}{4}$.

348 Discoidal Stone, Miss.: thinner at one edge, slightly concave. $3\frac{1}{2}$ x $\frac{7}{8}$.

349 Discoidal Stone, O.: double concave, sandstone. $2\frac{1}{4}$ x 1.

350 Discoidal; Mound Pottery; doubtful, but if genuine a very interesting example. $1\frac{7}{8}$ x 1.

351 Discoidal Stone, Clarksville, Tenn.; both sides convex. I think this is one of those rare objects sometimes found, perfectly fitting the concavity in some of the finest wrought discoidals. $2\frac{3}{8}$ x $1\frac{1}{2}$.

352 Paint Cup, Pa.: of white quartz, semi-ovate and beautifully finished; a prettier example than this it would be hardly possible to find. 2 x $1\frac{1}{4}$.

353 Paint Cup, Mich.: circular, variegated stone, beautifully wrought, polished inside and out. Diameter $1\frac{1}{2}$ in., height $1\frac{3}{4}$ in.

354 Muller: of white granular quartz: fine, a *rare form*. $1\frac{1}{2}$ x $1\frac{1}{8}$.

PIPES: PRE-HISTORIC.

355 Pipe: base elongated, elliptical, perforated from one end to the centre, from which the bowl rises in the form of a vase contracted at the bottom, enlarging at the top, closely resembling in form some of the mound pipes. Of fine workmanship and nearly perfect, with the exception of a little piece broken from one end: the material appears to be pyrites, but thickly covered with a black glazing or pigment: found in the bank of the Merrimac River at Hudson or Dunstable, N. H.: *most rare*. $5\frac{1}{2}$ in. long, 2 in. high, base $1\frac{5}{8}$ in. across in the middle.

356 Pipe, Amoskeag, N. H.; base semi-elliptical, perforated, with bowl rising from near the broad end, material and workmanship like the last, ornamented with divergent lines from the base of the bowl, edge of the bowl and end of the stem a trifle notched; very fine and *exceedingly rare*.

357 Pipe; of coarse sandstone, the body nearly round, the top flaring; very ancient. Its form suggests the idea that it was intended to possess some phallic significance; *very rare*; perfect, except that the edge of the flange is broken; length 3⅞ in., diameter 1½ in., of the flange 2¼ in.—*From the Jenison Collection*, No. 361.

358 Pipe, Minnesota; black basaltic rock, base square, perforated, with tablet placed edgewise on the top, bowl an elongated, inverted, truncated cone, closely resembling the Cal. Mound Pipe described in the Jenison Catalogue, No. 359; very fine and desirable. 5¼ x 2¼.

359 Antique Pipe, Western; designed for use with a stem: base oval, bowl rising from the centre somewhat in the shape of a wine glass contracted at the top; beautiful workmanship, and as perfect as when made. 2¼ x 1¼.

360 Pipe taken from a grave over the limestone quarry of John E. Weitzel, Conoy township, Lancaster Co., Pa.: approximates in form, though not closely, the ordinary clay pipe; the stem, which is 7¼ in. long, starts with a diameter of ¾ in., regularly enlarging to the bowl, where it is 1 in. diameter, the bowl curving from the end of the stem, rises to the height of 2¼ in.: that portion facing the smoker is a well carved head, with unmistakably Indian features: stem has been fractured, but is so neatly repaired that the break can scarcely be seen. This, rare, beautiful, and most remarkable pipe was obtained from the finder by Mr Ralston, and of its authenticity there can be no doubt; length 7¼ in., height 2¼ in.

361 Pipe, New York State; with gradually enlarging stem; like the last, curving at the end, expands into the bowl, which is in form of a bird, facing the smoker; appears to be pottery, a wonderful example and most desirable. 5¼ in. long, 4 in. high.

362 Pipe of dark sandstone resembling in form an animal's head, somewhat triangular, extra perforation for suspension; very fine and rare. 2½ x 2.

363 Pipe; sandstone, animal's head, form suggests a sheep; very fine and perfect. 1¾ x 1¼.

364 Calumet: sandstone, large square base for stem and bowl, in the same form, base and bowl readily exchangeable: a little chipped but very fine. $1\frac{3}{4}$ x $2\frac{1}{4}$.

365 Pipe, Social Hill, Hot Spring Co., Ark.: a mound pipe, of pottery: perfect and *rare*. $1\frac{1}{2}$ x 2.

366 Pipe, formed by a combination of grotesque and monstrous carvings, resembles Peruvian work, and said to be from Peru; but I have reason to believe it is from the Northwest coast; very fine indeed, and most remarkable. 4 x $2\frac{5}{8}$.

The four following (Nos. 367 to 370 inclusive,) are old but not prehistoric.

367 Pipe, from an Indian grave, Whetstone, Indian Agency, Dacota; catlinite, base round, 7 in. in length, bowl rising from the stem, two thirds the distance from one end to the other, 3 in. high, perfect and *rare*.

368 Pipe, Dacota: stem $4\frac{1}{8}$ in. round, 1 in. in diameter, tapers towards the end from which rises the bowl, an inverted cone $1\frac{1}{2}$ in. high; catlinite, very graceful, and has some ornamental work.

369 Pipe, made by the Chippewa Indians, in form resembles No. 367; catlinite, old and very fine, 7 in. long, $3\frac{3}{8}$ high.

370 Pipe, from an Indian grave, Whetstone, Dacota: in form resembles 367, but base less elongated: from long burial and use has acquired a deep rich color: broken, but the fracture so neatly mended as to be scarcely perceptible: catlinite, very fine, 4 in. long, 3 high.

The six following are all modern, but they are remarkable examples of savage workmanship.

371 Tubular Pipe or Cigar Holder, of rich mottled catlinite. $2\frac{1}{4}$ x $\frac{5}{8}$.

372 Miniature Pipe: catlinite. $1\frac{5}{8}$ x 1.

373 Pipe in form approximating No. 358: catlinite, ornamented with lead, work of the Sioux Indians. $6\frac{3}{4}$x$3\frac{1}{2}$.

374 Pipe, Queen Charlotte's Island: design, a long stem with a bone ferule for a mouth-piece; at the opposite end appears a neck with cravat and dickey: the bowl is formed by a head thrown backward to nearly a right angle with the neck, ornamented with a headdress and wearing long hair; the features are peculiar, but hardly characteristic of any known race of men: the top of the stem is ornamented with a monstrous loon; black basaltic rock, highly finished; from the Haidah Indians, and a wonderful piece of work. $8\frac{1}{2}$ x $1\frac{1}{2}$.

375 Pipe, North Carolina, of pretty design, ornamented with a bear standing on top of the stem; stone work of the modern Cherokees; 2¼ x 1½.

376 Pipe, N. C. Cherokee work; the ornament in this case a squirrel; stone, very fine: 2 x 1½.

PLUMB-BOBS AND SINKERS.

377 Plumb-bob, Mass.; granite with knob. 3 x 1½.

378 Plumb-bob, Saugus River, Mass.: with knob deeply grooved; fine. *rare*. 2¼ x 1¼.

379 Plumb-bob, Pa.; long, with knob; fine. 2¼ x ¾.

380 Plumb-bob, Pa.; ovate, without the knob; fine. 2½ x 1½.

381 Plumb-bob, Pa.; like the last; fine. 3 x 1¾.

382 Sling-shot, Sinker or Plumb-bob, Pa.; Prof. Rau remarks, "Much rarer than the sinkers just mentioned, are others, consisting of pebbles perforated with an oblique hole, not in the centre, but nearer the circumference of the stone. The hole is drilled from two sides, and generally forms an obtuse angle where the perforations meet." Sandstone; a very fine example. 2 x 1¾.

383 Grooved Sinker, N. J.; fine. 2 x 1½.

384 Grooved Sinker, Pa.; globular, surface highly polished; *rare*; diameter 1 in.

385 Sinker, Oregon; a flat, nearly circular stone, with large perforation a little out of the centre. 6 x 5¼.

386 Plumb-bob, grooved, De Roche, Hot Spring Co., Ark.

387 Pendant; of reddish jasper, perforation ornamented at one end. 1¼ x ¾.

388 Grooved Sinker; nearly round. 1¼ x 1¼.

389 Elongated grooved Sinker, or may possibly be a Club Head; fine. 4 x 2¼.

390 Ovate grooved Sinker; granite. 3¼ x 2¼.

391 Grooved Sinker; red sandstone, similar type to 389; fine. 3¼ x 2¼.

HAMMERS AND HAMMER STONES.

392 Grooved Hammer, N. Y., labeled by Mr. Ralston a "War Club"; dark granite, very fine and a *rare* form. 3¾ x 3¼.

393 Grooved Hammer, Mich.; somewhat globular; very fine. 1¾ x 2.

394 Grooved Hammer, Pa.: much like the last: equally fine. 2 x 2.

395 Hammer Stone or Ball, O.; diameter 2½ in.

396 Hammer Stone or Ball; of great specific gravity; diam. 2¾ in.

397 Hammer Stone or Ball, O.; fine; diameter 3 in.

398 Hammer Stone, New Albany, Ind.; quartzite, chipped; diameter 3 in.

399 Hammer Stone, O.; diameter 2¼ in.

400 Oval Hammer Stone, O.: deep depression on each side. 4¼ x 3.

401 Hammer Stone, Lehigh Valley, Pa.: depressions on opposite sides. 3 x 1½.

402 Hammer Stone, Pa.: with depressions 3 x 1¾.

403 Ball, Georgia: fine: diameter 2¼ in.

404 Ball, Ga.; fine: diameter 2 in.

405 Ball, Ga.: flattened; diameter 2 in.

406 Ball or Target Stone, Ga.: fine and a *rare form*; diam. 2 in.

407 Discoidal Stone from the same locality and of the same character as No. 351; very fine; diameter 2½ in.

LOCAL MANITOS.

Schoolcraft somewhere in his great work remarks: "The superstitions of the existing race of Indians are evinced by their frequently selecting curiously-wrought boulders of rock called Shin-ga-ba-was-sins by the Algonquins. These boulders have the essential character of idols. They mark the supposed locality of some god of the air. They are sometimes distinguished by the use of pigments. (See plate 12, figures 4, 5, 6, 7, 8.) They are generally imitative water-worn masses, upon which no chisel or labor of any kind has been employed, except by the addition of Indian pigments. Plate 74 is supposed to represent the Gitchy Kenabec, or Great Serpent of their mythological and allegorical fictions."

408 Local Manito: head of the Great Serpent, the identical object mentioned by Schoolcraft, and to the illustration of which plate 74 in his work is devoted. This stone which bears a striking resemblance to the head of an immense snake, is apparently a natural formation; one eye, the nostrils and throat are appropriately colored with Indian pigments: from the Schoolcraft collection, unique and of great historical interest. 7¼ in. long, 4¼ wide, 4 high.

409 Local Manito; dark stone bearing a marked resemblance to the head of a sheep though not certainly known; it is also believed to be from the Schoolcraft collection. This example is neither colored nor wrought. 6¼ in. long, 1⅞ in. wide, 3½ in. high.

410 Local Manito, Lancaster Co., Pa.; approaching in form an immense broad axe, greatest length 12 in., breadth 11 in.

411 Local Manito, Leslie Township, Mich.; in form of a giant spear head; of coarse granite, 13¼ in. long, 4¼ wide, weighs 4¼ lbs.; very fine, unique.

AGRICULTURAL IMPLEMENTS.

412 Spade, from a mound, Shiloh Valley, St. Clair Co., Ill.; quartzite, nearly elliptical, edge and one end glazed by long use; no finer implement of this description can be produced; thin, as perfect as when made. 12½ x 4¼ in.

413 Spade, Cahokia, Ill.; broad and rounded, tapering towards the head, shows in spots the original surface of the stone from which it was made; has been broken, but so neatly cemented that the fracture is scarcely perceptible; very fine. 7¼ x 3½.

414 Spade, American Bottom, Ill.; quartzite, one side ribbed, the other slightly concave, both sides polished over nearly the entire surface; remarkably fine. 6½ x 2¼.

415 Spade, near Stanton, Mo.; variegated quartzite; a beautiful material; very fine. 5¼ x 2¼.

416 Spade, near St. Louis on the Illinois side; in form somewhat triangular; fine. 4¼ x 3.

417 Spade, New Harmony, Ind.; brown quartzite, surface partly polished; very fine indeed. 6¼ x 3¼.

418 Spade, O.; dark, flint-like stone; fine. 5½ x 2¼.

419 Spade; one of a cachet of about 150, found in 1861, in a recently drained meadow about three miles south of Trenton, N. J.; material resembling brown jasper, elliptical, with one end square; very fine and rare. 7¼ x 2¼.

420 Spade, O.; of reddish slate, labeled by Dr. Ralston "Among the rarest of Indian relics"; oval, fine. 5¼ x 3½.

421 Spade, N. J.; rude, but perfect. 5¼ x 1¼.

422 Spade, Chester Co., Pa.: ovate, with pointed ends, slate: fine. $5\frac{1}{4}$ x $3\frac{3}{8}$.

423 Discus, of variegated flint, Alto Pass, Union Co., Ill.: perfect, and a *rare* example: nearly circular, the longer diameter $6\frac{3}{4}$, the shorter $5\frac{3}{4}$.

424 Discus, same locality: material and workmanship equally fine. $5\frac{1}{2}$ x $4\frac{7}{8}$.

425 Discus or Spade, O.: dark flint, ovate. $5\frac{1}{2}$ x 4.

426 Hoe, N. J.: labeled, "An Indian axe," but from its form, I think it better adapted for use as a hoe than any other implement that I have ever seen: of red stone, the surface patinated as it were by age; perfect and an *exceedingly rare form*. $6\frac{1}{2}$ x $5\frac{3}{4}$.

427 Hoe or Dise of slate, Lehigh Valley, Pa.: nearly circular: diameter $6\frac{1}{2}$ in.

428 Spade or Shovel, Mich. This remarkable implement, the use of which seems obvious, has a somewhat oblong, nearly square blade, 5 in. long and $4\frac{1}{4}$ in. wide; at the top of the blade a shoulder is formed, and the instrument is contracted to the width of only $2\frac{1}{2}$ in., thus forming a handle $4\frac{1}{2}$ in. long. The Smithsonian Institution borrowed this object and had a cast made from it. $9\frac{1}{2}$ x $4\frac{1}{4}$.—*From the Jenison Collection*. No. 383.

PESTLES.

429 Long Pestle, Belchertown, Mass.: fine, both ends showing marks of use. $13\frac{1}{4}$ x $2\frac{1}{8}$.

430 Long Pestle, Conn.: wrought, but nearly square: this form is *rare*. $15\frac{1}{2}$ x $2\frac{1}{4}$.

431 Long Pestle, N. J.: symmetrical: tapering towards each end; the ends rounded. 12 x $2\frac{1}{4}$.

432 Long Pestle, N. J.: tapering from near one end to the opposite extremity: a deep notch is cut in one side of this pestle, extending about one-fourth its diameter, this notch is evidently cotemporary with the object, and suggests a curious inquiry as to how and why it was made: unique. $10\frac{3}{4}$ x $2\frac{1}{8}$.

433 Long Pestle, N. J.: granite, disintegrated: giving it a fluted appearance on one side. $9\frac{3}{4}$ x $1\frac{3}{4}$.

434 Long Pestle, Lehigh Valley, Pa.: cylindrical, with three sides flattened: *rare form*, fine. 19 x $2\frac{3}{8}$.

435 Long Pestle, Pa.: symmetrical: fine. $8\frac{1}{2}$ x 2.

436 Long Pestle, Tenn.; fine. A long pestle found outside of the Eastern and Middle States is a very rare object. 17 x 2.

437 Long Pestle, Tenn.; symmetrical, tapering towards the end. 8 x 1½.

438 Long Pestle, McDowell Co., N. C.; tapering, one end nearly square. 12¼ x 1¼.

439 Long Pestle or Muller. 3½ x 1½.

440 Flat-head Pestle, O.; diameter of the head 3½ in., height 4¼; edge a little chipped, but fine.

441 Flat-head Pestle, O.; handle with knob at the top; the head has a well-marked depression, which goes far to prove that these implements were not used for crushing corn, but rather for cracking nuts; symmetrical and perfect; the finest implement of the sort that I have ever seen; it is of fine grained granite, the surface smoothly wrought and finely polished. 6 x 3½.

442 Flat-head Pestle, O.; fine. 3¼ x 4½.

443 Flat-head Pestle, O.; fine. 3¼ x 4¼.

444 Flat head Pestle, O.; in form nearly conical. 3¼ x 5.

445 Flat-head Pestle, O.; semi-ovate. 3¼ x 4¼.

446 Flat-head Pestle, O.; head a little chipped, but fine. 3½ x 5½.

447 Flat-head Pestle: head small, chipped, handle unusually slim and long. 6¾ x 2½.

SPEAR HEADS AND ARROW POINTS, CONTINUED.

448 Spear Heads, O.: serrated, rotary, etc.: very fine. 7 pieces.

449 Barbed Spear Head, O.; beveled. 3½ x 1¾.

450 Notched Spear Head, with rounded base, O.: very fine. 4¼ x 1¾.

451 Spear Head, O.: flesh-colored feldspar: very fine. 3¼ x 1.

452 Bunt or Scraper, of the largest size: very fine. 2 x 2.

453 Spear Heads, Ind.; one leaf-shaped: very fine lot. Card. 9 pieces.

454 Spear Head, Ill.; shield-shape; fine. 3 x 1¼.

454a Spear Head, Mich.; barbed, light feldspar, thin; very fine. 3¼ x 2¼.

455 Spear Head, Mich.: doubly barbed, remarkable both for size and form; quartzite. 5 x 2¼.

456 Arrow Points, Ky.; representative lot, all of different forms: fine. 15 pieces.

457 Arrow Points, Ky.: variety; all fine. Card. 11 pcs.

458 Arrow Points, N. C.: variety; all fine. Card. 18 pcs.

459 Arrow and Spear Points, N. C.; some of remarkable form: all fine. 12 pieces.

460 Arrow Points, N. C.; war points, serrated, rotary, etc.; a very fine lot. 30 pieces.

461 Spear Points, N. C.; assorted sizes and material: very fine. 11 pieces.

462 Arrow and Spear Heads, N. C.: fine selected assortment; a part of white quartz. 22 pieces.

463 Leaf-shape Spear Head, N. C.; fine. 4½ x 1.

464 Jasper Spear Heads from near Natchez, Miss.: fine, and of *rare material*. Card. 2 pieces.

465 Arrow and Spear Heads, Natchez, Miss.; one of the latter barbed and notched, unlike any other that I have seen; all very fine. Card. 5 pieces.

466 Arrow Heads, etc., Natchez, Miss.; five of these pieces are of a form peculiar to the work of the Natchez Indians; notched at the base and sides, much expanded near the base, then curving inward and ending in a long point; very beautiful form, one a fine drill, all perfect. Card. 10 pieces.

467 Arrow Points, Natchez Indians: handsome material, form like the last; all very fine. Card. 12 pieces.

468 Arrow Points, Natchez Indians: various forms, perfect. Card. 22 pieces.

469 Arrow and Spear Heads, Miss.: one nearly triangular, *rare form;* all fine. Card. 16 pieces.

470 Arrow Points, Miss.: quartz, jasper, etc.: all very fine. Card. 31 pieces.

471 Arrow Points, Miss.; barbed, one a small spear point doubly barbed, a *very rare form:* all very fine. Card. 9 pieces.

472 Arrow Points, Natchez Indians; obsidian, jasper, chalcedony, etc.; small size; fine. Card. 12 pieces.

473 Arrow Points, Natchez, Miss.: barbed, small; very fine. Card. 11 pieces.

474 Long triangular War Points, Miss.: fine. Card. 5 pcs.

475 Spear Heads, Miss.; all very fine. Card. 5 pieces.

476 Arrow and Spear Heads, Miss.; one a serrated spear head; all very fine. Card. 14 pieces.

477 Arrow and Spear Heads, Miss.; great variety, all very fine. Card. 16 pieces.

478 Spear Heads, Miss.; very fine. Card. 11 pieces.

479 Spear Heads, Miss.; very fine. Card. 3 pieces.

480 Spear and Arrow Heads, Miss; two of the largest are of chalcedony; very fine. Card. 6 pieces.

481 Arrow Heads; all very fine and illustrating most of the forms prevailing in that State. Card. 13 pieces.

482 Spear Heads, Miss.; jasper; fine. Card. 3 pieces.

483 Spear Heads, Miss.; fine. Card. 19 pieces.

484 Three Spear Heads, Miss; double barbed, of large size, and a double-tanged Arrow Head; all remarkably fine. Card. 4 pieces.

485 Spear Heads, Miss.; three of the form last described, and another, triply notched, having six barbs; a form I have never before observed; and a very fine Drill 2¼ in. long; all perfect. Card. 5 pieces.

486 Spear Heads, Miss.; fine. Card. 3 pieces.

487 Six Spear Heads; of beautiful material, and all remarkably fine, and a Drill 3 in. in length, as perfect an implement of this kind as can be found. Card. 7 pieces.

488 Arrow and Spear Points, Miss.; different forms; very fine. Card. 7 pieces.

489 Two large Spear Points, and a dagger-shaped Arrow Point, Miss.; very fine. Card. 3 pieces.

490 Spear Points, Miss.; one curved, one serrated; very fine. Card. 3 pieces.

491 Spear Points, Miss.; one serrated; all fine. Card. 3 pc.

492 Spear Points, Miss.; triangular. Card. 2 pieces.

493 Arrow Points, Miss.; stemmed, barbed, serrated and much elongated, one ½ in. wide, being 2½ in. long; also one Drill; all perfect and most remarkable. Card. 6 pieces.

494 Arrow Points, Miss.; fine. Card. 5 pieces.

495 Arrow Points, Miss.; some large, and some very small, all perfect. Card. 9 pieces.

496 Spear Points, Miss.; perfect. Card. 3 pieces.

497 Fish Spear, Spear Points and double-tanged Arrow Point, Miss. Card. 4 pieces.

498 Curved and rotary Spear Point, Miss.; fine. 3⅝ x 1½.

499 Spear Point; serrated and rotary, the twist making nearly a half turn; jasper, a beautiful example and the only one of this form I have ever met with. 3¾ x 1½.

500 Spear Head, Miss.: thin, finely wrought, perfect. 4x1¾.

501 Spear Head, Miss.; rotary; fine. 2½ x 1.

502 Spear Head, Miss.: beveled, rotary, remarkable form: very fine. 3⅜ x 1½.

503 Spear Head, Miss.; barbed, perfect. 3 x 1½.

504 Spear Head, Miss.; perfect. 3 x 1¼.

505 Spear and Arrow Heads, Miss.; all very fine, mostly of large size. Card. 11 pieees.

506 Spear Heads, Miss.; all very fine, some nearly 4 in. in length. Card. 13 pieees.

507 Spear Heads, Miss.; some serrated, two of chaleedony, all very fine. Card. 15 pieces.

508 Arrow Points, Miss.; barbed, serrated, war points, etc., mostly of small and medium size; a fine lot. 40 pcs.

509 Spear Heads, Miss.; a very fine lot of medium size. Card. 16 pieces.

510 Spear Heads, Miss.; all fine. Card. 3 pieces.

511 Arrow Heads, Ga., Ala., Texas; very fine. Card. 18 ps.

512 Spear and Arrow Heads, Tenn.: very fine. Card. 16 ps.

513 Arrow and Spear Heads, Ga.; all very fine. Card. 19 piecees.

514 Spear Point, Ga.; notched base; very fine. 5¾ x 1¼.

515 Spear Point, Ga.; serrated: jasper. 3½ x 1.

516 Spear Point, Ga.; barbed; variegated jasper, perfect. 3½ x 1.

517 Spear Point, Ga.; broad, somewhat triangular: fine. 2¼ x 1½.

518 Spear Point, Ga.: rotary, serrated; fine. 3 x 1.

519 Spear Point, Ga.; serrated: fine. 3½ x 1⅛.

520 Spear Point, Ga.; serrated: very fine. 3¼ x 1⅛.

521 Spear and Arrow Points, great variety, Ark., Ga., Pa.; all fine. Card. 16 pieces.

522 Arrow Point, Mo.; agate, serrated, one side presenting a curious resemblance to a face: fine.

523 Spear Head, Social Hill, Hot Spring Co., Ark.; very fine. 2½ x 1½.

524 Spear Head, same locality; barbed and tanged: very fine. 2½ x 1⅛.

525 Spear Head, Ark.; chalcedony, very fine and of good size. 2 pieces.

526 Beveled Arrow Point with broad stem, Ark.; chalcedony, fine.

527 Barbed Arrow Points, Ark.; all fine. 9 pieces.

528 Arrow Points with hollowed base, Ark.; *rare form*, all fine. 6 pieces.

529 Arrow Points, Ark.; notched and other forms; fine lot. 9 pieces.

530 Arrow Heads, Ark.; notched base and serrated; *rare form*, all fine. 5 pieces.

531 Arrow Heads, Ark.; slightly defective, but very desirable as illustrating forms and material. 17 pieces.

532 Arrow and Spear Heads, Ark.; above the ordinary size, desirable. 8 pieces.

533 Arrow Points, Cassia Co., Idaho; obsidian, large and small, very fine. 11 pieces.

534 Arrow Points, Idaho; a great variety, all fine and two or three are most remarkable. 11 pieces.

The nineteen lots following are from the Northwest Coast; they are mostly of very beautiful material,—obsidian, chalcedony, jasper, agate, quartz, etc.; they are finely wrought, and the most beautiful arrow heads in existence, they are in great demand for jewelry. Those lots of which the quality is not especially mentioned, contain some specimens slightly defective, but they are mostly in very fine condition; they vary in size from ½ to 14 in. in length, the latter size being exceptionally large.

535 Arrow Points; jasper, all the prevailing forms, unusually large size; a superb lot, all perfect. 22 pieces.

536 Arrow Points; jasper, agate, chalcedony, etc., greater variety in size, but a lot as perfect as the last. 24 pc.

537 Arrow Points; obsidian, notched, barbed, serrated, etc., one of exceptionally large size; very fine. 16 pieces.

538 Arrow Points, selected for variety and beauty of material; very fine. 23 pieces.

539 Arrow Points, like the last, varied in form and material, average size somewhat larger; perfect. 24 pieces.

540 Arrow Points; irregular form; perfect and rare. 4 pcs.

541 Arrow Points; triangular, of the kind known as War Points; all fine. 10 pieces.

542 Arrow Points; obsidian, small size, various forms; fine. 17 pieces.

543 Arrow Points; mostly obsidian, small size; good. 19 pc.

544 Arrow Points; great variety in shape and material; good lot, a few slightly imperfect. 42 pieces.

545 Arrow Points; obsidian, etc.; good lot. 16 pieces.

546 Arrow Points: obsidian, jasper, etc., large and small: a few defective, mostly fine. 46 pieces.

547 Arrow Points: obsidian, jasper, etc., some curious forms: good lot. 22 pieces.

548 Arrow Points; mostly jasper, medium size; fine lot. 34 pieces.

549 Arrow Points; minute, mostly very fine. 15 pieces.

550 Arrow Point; jasper, dagger-form, with long stem, minute; *rare*.

551 Arrow Points: chalcedony, jasper, etc.: fine lot. 26 ps.

552 Arrow Points: chalcedony: fine lot. 7 pieces.

553 Arrow Points: a great variety, chalcedony and other materials: the lot represents most existing forms and is very fine and desirable. 100 pieces.

554 Leaf-shape Arrow Point, Oregon: jasper, very fine. 2 in.

555 Barbed Arrow Points, Oregon: jasper, very fine. 2 pcs.

556 Arrow Points, Oregon; barbed and stemmed: jasper, very fine and large.

557 Leaf-shape Arrow Points, Oregon: very fine. 2 pieces.

558 Arrow Point, Oregon; rounded base: jasper, very fine. 2 in.

559 Triangular Spear Heads, Oregon; jasper, very fine. $2\frac{1}{2}$ in. 5 pieces.

560 Arrow Points, Oregon: agate, quartz, etc., large size: fine. 5 pieces.

561 Arrow Point, Oregon; black, resembles obsidian, fine. $2\frac{1}{2}$.

562 Arrow Points, Oregon; one a War Point: a very fine lot. 7 pieces.

563 Spear Head, Mich.: thin and beautifully wrought: very fine. $4\frac{1}{8}$ x 2.

564 Spear Head, Ohio: barbed and stemmed: *extremely fine*. 6 x 2.

565 Spear Head, O.; rounded base: fine. $5\frac{1}{4}$ x $2\frac{1}{4}$.

566 Spear Head, Mich.: with barb and stem: very fine. $4\frac{3}{4}$ x 2.

567 Spear Head, Ill.: doubly notched, narrow and pointed. 6 x $1\frac{1}{2}$.

568 Spear Head, Ill.: nearly elliptical: very fine. 6 x $1\frac{5}{8}$.

569 Arrow Point, New Mexico: obsidian, dagger-form, very fine and large. $2\frac{1}{2}$.

570 Arrow Point, N. M.: notched, with rounded base: perfect. $2\frac{3}{4}$.

571 Shark-tooth Arrow Point, Oregon; dark chalcedony; most *rare form*.

DRILLS AND SCRAPERS.

Nearly all of the drills following are from Ohio, some are from other Western States. A few of the last mentioned having got mixed with a large number from Ohio, makes it impossible to give the locality of any with certainty. All collectors know that a perfect drill or perforator is a rare object; nearly all the following are perfect.

572 Drill; expanding towards the base, which is neatly square, forming a very convenient handle; perfect. 3¼.

573 Drill; perfect. 3.

574 Drill; originally very fine, the point broken. 2¾.

575 Drill; with narrow handle; perfect. 2¼.

576 Drills; of dark porphyritic stone, perfect. 2½. 2 pcs.

577 Drills; blunt, with notched handle, two not quite perfect. 3 pieces.

578 Drills; small size, with handles; two perfect, one not quite so. 3 pieces.

579 Drill; with broad, expanding handle; perfect. 2¼.

580 Drill; base or handle triangular; perfect. 2¼.

581 Drill; with notched base; perfect. 2.

582 Drills; all perfect. 1⅞ to 2½. 5 pieces.

583 Drill; *extremely fine*, has been broken, and mended so as to scarcely show. 3¼.

584 Drills; somewhat imperfect, one of great antiquity. 3 pc.

585 Drills; one a little damaged, the others perfect, various sizes. 8 pieces.

586 Scrapers, Oregon; of large size and very fine. 5 pieces.

587 Scrapers, Oregon; obsidian, fine. 3 pieces.

588 Scrapers, Oregon; jasper, very fine. 10 pieces.

589 Scrapers, Oregon; chalcedony, etc. 9 pieces.

590 Scrapers, Oregon; different materials, all fine. 8 pieces.

591 Scrapers, Oregon; all neatly made and of pretty material; a very fine lot. 16 pieces.

592 Scrapers, Oregon; fine. 9 pieces.

MISCELLANEOUS.

593 A string of Wampum of black and white shell beads; the beads are about 900 in number, the string is 57 in. long, each bead in diameter ¼ in.; fine and very rare.

594 String of Beads from the Marquesas Islands. 27 pieces.

595 A Card from the collection of Dr. T. S. Hitchcock, formerly of Tucson, Arizona, inscribed "All of these were found together, by me, in an old ruin above Camp Thomas, Arizona, with several pieces of pottery, human bones, etc., 1879." The objects referred to are as follows: —

An arrow point with concave base and barbed: a point so delicate and graceful I have never seen: length 1½.

An arrow point of opal or opalized quartz: the stone itself is a gem, the arrow is unique in form, being barbed and notched, and has a polish equal to that which can be given to-day: length 1⅛ in.

A barbed arrow point of jasper, triangular, with elongated tang from which a rib extends to the point on each side: as highly finished as the last.

Six arrow heads of obsidian, assorted sizes; all perfect and of *rare form*.

A cutting implement of mottled porphyry, somewhat of the form of the old fashioned chopping knife, the blade 4½ in. long, 1⅓ in. wide, the handle 2½ in. long and 1 in. high, an oval perforation between the blade and handle: as highly finished as the arrow points described. I am not aware of the existence of another object like this.

A little stone object like a discoidal stone, perfectly finished, but the diameter is no more than half an inch.

A bead of jade, ¾ in. long, ¼ in. in diameter.

A somewhat heart-shaped object of stone highly finished, to which I am unable even to assign a name. 2 x 1¼.

A fine drill with the point broken off. 2⅛.

Three arrow points, one of jasper, all of large size and very fine.

An object carved in bone or ivory representing a fish: perforated at the top for suspension. 2¼ in. long.

Another carving in ivory, like a miniature banner stone.

A figure carved in chalcedony representing some animal, somewhat resembling the beaver, with the exception of the tail, which is short: polished like the opal arrow point.

Of the rarity of this little collection, suffice it to say, that to duplicate it, all the museums of this country would be ransacked in vain. 20 pieces.

596 Ring, Star, and Pestle. Arizona: lava. It is said these objects were used in playing some sort of a game: they are certainly very curious and rare. 3 pieces.

597 Anvil or Nut Stone from Miss.: fine. 5 x 3½.

598 Anvil or Nut Stone, Miss.; depressions on three sides; fine. 5 x 3¼.

599 Grooved Axe, Mo.; very fine. 5½ x 3.

600 Grooved Axe, Mo.; one side concave; very fine. 4x2½.

601 Spade, Mo; very fine. 5½ x 2¼.

602 Rotary Spear Head; expanding near the point, a very uncommon form. 5 x 1½.

603 Knives, Mo.; good. 2 pieces.

604 Arrow Points and Spear Heads, different locations in Mo.; a fine lot. 11 pieces.

605 Arrow Heads, Mo., different locations; some broken, two of surpassingly fine workmanship. 16 pieces.

606 Fish Spear, Howard Co., Mo.; very fine. 3 x 1.

607 Broad Arrow Point; mottled, stemmed and barbed, Mo.

SCANDINAVIA, ETC.

CELTS, SQUARE CHISELS AND GOUGES.

ALL OF TRUE FLINT.

The objects here described are generally termed by European archæologists wedges and hollow chisels. I have preferred the terms celt and gouge. I repeat a note made in a former catalogue: "The word chipped as applied to these implements of flint, does not in any case indicate a defect, but refers to the manner of working the material and is equivalent to flaked, as distinguished from polished, or pecked."

608 Celt; flats and sides polished, with new edge formed by chipping. Riborg, Jutland; fine. 7 x 2¾.

609 Celt; chipped, thick, head thin. Fredensburg, Zealand; fine. 8 x 2½.

610 Celt; flats partly polished, sides chipped, edge polished, head thin. Denmark; fine. 7¼ x 3.

611 Celt; one flat polished, the other flat, sides and edge chipped. Fredensborg, Zealand; fine. 7¼ x 3½.

612 Rude Celt; with edge oblique to the flats. Found in ditching at Nyborg, Funen; fine. 5½ x 2.

613 Celt; chipped, square, oblong head with expanding edge. Skalberg, Funen; fine. 6½ x 2.

614 Celt; chipped, flats polished, head small, sides expanding. Sweden; fine. 5½ x 2.

615 Celt: flats and sides polished, head square, new edge formed by chipping. Denmark. $4\frac{3}{4}$ x $1\frac{3}{4}$.

616 Celt: flats and sides polished, head thin, expanding edge, chipped. Jutland; very fine. $4\frac{3}{4}$ x $2\frac{1}{4}$.

617 Celt; chipped, of yellow flint. Sweden. $4\frac{1}{2}$ x$1\frac{3}{4}$.

618 Celt: flats partially polished, sides chipped and nearly parallel for half their length, head rounded, edge expanding, *rare form*. Zealand. 5 x 2.

619 Celt; of dark flint, flats partially polished, sides nearly parallel, edge newly chipped. Zealand. 5 x 2.

620 Celt; flats polished, sides chipped and nearly parallel, top thin, edge polished. Denmark. $5\frac{1}{4}$ x 2.

621 Celt; flats beautifully polished, top chipped, edge expanding. Ballerup, Zealand; a most desirable example. $7\frac{1}{2}$ x $2\frac{3}{4}$.

622 Celt: flats polished, head oblong, edge a little imperfect, still fine. Zealand. $6\frac{3}{4}$ x $2\frac{7}{8}$.

623 Celt; flats and sides polished, head and edge newly chipped; variegated flint. Zealand. $5\frac{1}{4}$ x $2\frac{3}{4}$.

624 Celt; flats polished, sides polished and expanding, head square; very fine. Denmark. $6\frac{1}{4}$ x $2\frac{1}{2}$.

625 Celt: thick, flats polished, sides chipped, square head. Denmark. $5\frac{3}{4}$ x $2\frac{1}{8}$.

626 Celt; flint, polished, square head, with newly chipped edge, very thick and fine. $5\frac{3}{4}$ x $1\frac{3}{4}$.

627 Celt: of blnish flint, polished, sides expanding, head shows original surface of stone. Funen: fine. $5\frac{1}{2}$x$2\frac{3}{4}$.

628 Celt; sides and flats chipped, the corners show in a very marked manner the finish technically called carving, head thin: sides nearly parallel: found in a great tumnlns at Randers in Jutland: perfect and very beautiful, both work and material: such examples are of the highest rarity. $11\frac{3}{4}$ x $3\frac{1}{8}$.

629 Celt: in form and quality closely approaching the last, though a little less symmetrical. Denmark; perfect. $11\frac{3}{4}$ x 3.

630 Celt: of chocolate-colored flint, flats and sides polished, sides convex, top thin, edge expanding; a very fine example and *rare*. Denmark. $10\frac{1}{4}$ x $3\frac{3}{8}$.

631 Celt: flats and sides polished, edge expanding, head thin, material like the last. Denmark; very fine. $10\frac{1}{2}$ x 3.

632 Celt: flats and sides polished, edge expanding and newly chipped. Denmark: very fine. $9\frac{3}{4}$ x $2\frac{3}{4}$.

633 Celt; one flat and one side polished, the other flat and side and the edge chipped: of beautiful richly-colored flint. Island of Moen; very fine. 7¼ x 2¾.

634 Celt; polished flats, sides chipped and curving outward, head square; very fine; of mottled flint. Denmark. 5 x 2½.

635 Celt; flats polished, convex, sides polished, thin edge, newly chipped. Zealand; fine. 6⅝ x 2¼.

636 Celt; chipped, corners curved, head thin. Jutland; fine. 8¼ x 2¾.

637 Celt; of dark flint, showing in spots the original rind of the stone, chipped, with carved corners, head thin; of beautiful material and very fine. 7½ x 3.

638 Massive flint implement, approaching in form the turtle-backs of New Jersey. Zealand; very rude and *rare*. 8 x 4.

639 Celt; polished; sides thin, in form somewhat ovate, head newly chipped. Denmark; fine. 4¼ x 2½.

640 Celt; polished, square head, edge expanding. Nyborg, Funen; very fine. 4¼ x 2.

641 Celt; flats polished, sides chipped, head oblong, edge broadly expanding. Denmark; very fine. 4½ x 2½.

642 Celt; polished, of form like the last. Zealand; fine. 4 x 1¾.

643 Celt; polished on all sides, square head, perfect. Zealand. 4¼ x 1¾.

644 Celt; polished flats, chipped sides, square head, covered with a white crust, indicating great age. Zealand; fine. 3¾ x 1¾.

645 Celt; polished, nearly square. Denmark; fine. 3 x 1½.

646 Celt, called an Oyster Knife by the European dealer; one flat chipped, the other the natural surface of the stone, sides beveled. Jutland; fine, a *rare form*. 4 x 1½.

647 Celt; polished, with sloping sides. Denmark; very fine. 6⅜ x 2¼.

648 Rude, chipped Celt; of dark flint. Plowed up at Egeme, Funen. 5¼ x 2¾.

649 Celt; flats and sides chipped, corners carved, top thin, mottled flint. Denmark; very fine. 6¼ x 2.

650 Celt; chipped, head shows the original rind of the stone. Denmark; fine. 7 x 2½.

651 Celt; chipped, a small part of one flat polished, expanding edge, square top. Found in a tumulus, Jutland; very fine. 5½ x 2½.

652 Celt or Knife; with edge extending up both sides to near the head. Plowed up in Funen; fine. $5\frac{1}{4}$ x $2\frac{1}{8}$.

653 Celt; polished, thin top, oblong. Assens, Funen; very fine. $4\frac{5}{8}$ x 2.

654 Celt; flats and sides polished, sides expanding, head square. Svendborg, Funen; very fine. $6\frac{1}{4}$ x$2\frac{1}{8}$.

655 Celt; polished, head thin, of small size. Denmark; very fine. $3\frac{3}{4}$ x 2.

656 Celt; polished, thin and narrow, perfect. Denmark. $4\frac{3}{4}$ x $1\frac{5}{8}$.

657 Celt; polished, top thin; found by ditching. Jutland; very fine. $5\frac{1}{2}$ x $2\frac{3}{4}$.

658 Small Celt or Oyster Knife. Denmark; very fine. 3x$1\frac{1}{4}$.

659 Celt; polished, unusually small. Denmark; very fine. $2\frac{1}{2}$ x $1\frac{1}{2}$.

660 Celt; polished, the portion near the top rough, probably for fixing in a handle. Zealand; fine. $6\frac{1}{4}$ x 2.

661 Celt; polished, square top. Zealand; fine. $5\frac{1}{4}$ x 2.

662 Celt; chipped, has a natural perforation extending nearly through. Jutland; fine. $7\frac{3}{4}$ x $2\frac{3}{4}$.

663 Celt; polished, sides rounded. Denmark; very fine. 7 x $2\frac{1}{4}$.

664 Celt; chipped, oblong in form, well defined edge at both ends. Denmark; very fine and of handsome color. $7\frac{1}{2}$ x 3.

665 Celt; chipped like the last, both ends have a cutting edge. Denmark; very fine. $7\frac{3}{4}$ x 3.

666 Celt; polished on the flats, edges chipped, one by a single flake removed from its entire length. Jutland; very fine and most remarkable. $7\frac{3}{4}$ x $3\frac{1}{4}$.

667 Celt; rudely chipped, apparently blocked out, but unfinished. Zealand. 8 x $2\frac{3}{4}$.

668 Narrow Chisel; flats polished, sides chipped, top contracted. Funen. $3\frac{3}{8}$ x $1\frac{1}{4}$.

669 Celt; one flat polished, the other and the sides chipped, called an Adze by the European dealer. Sweden; very fine. 9 x $3\frac{1}{4}$.

670 Celt; originally of very large size and polished; some of the polish remains, but it has been newly chipped over most of its surface. Denmark; fine. $8\frac{7}{8}$ x 3.

671 Celt; polished, the head, edge and one side newly chipped; a natural perforation extends nearly through the implement. Plowed up in Jutland; fine. $7\frac{1}{4}$ x 3.

672 Celt; chipped, thin, sides nearly parallel, cutting edge at both ends. Denmark; fine, and an uncommon variety. 5½ x 1¾.

673 Narrow Chisel; sides parallel, head newly chipped, corners carved. Denmark; very fine. 6¼ x 1¾.

674 Celt; polished, top narrowed and newly chipped. Denmark; fine. 5½ x 2½.

675 Celt; beautifully polished, broadest in the middle, contracting towards the top and edge. Found in a marl bed, Odense, Funen; *extremely fine and very rare form*. 7 x 2½.

676 Celt; polished flats, chipped sides, carved corners. Russia; very fine, *rare*. 4½ x 1¾.

677 Celt; polished, thin, narrowing near the edge. Copenhagen; fine. 4½ x 1⅝.

678 Celt or Gouge; chipped, square top, edge expanding and only slightly curved. Jutland; fine. 6¼ x 2¼.

679 Celt; very rudely chipped, with a deep perforation at one side. Found at the water side in the little island of Hesselo. 5¼ x 2¼.

680 Celt; polished, top newly chipped and rounded. Sweden; fine and *rare*. 4¼ x 2¼.

681 Celt; chipped, the natural surface of the flint forming one of the flats, rude chipping; fine. Zealand. 7x2.

682 Celt; chipped, with square head, edge slightly concave. Denmark; very fine. 5¼ x 2.

683 Narrow chipped Celt. Denmark. 4¾ x 1¾.

684 Narrow Chisel; polished flats, chipped sides, carved edges, expanding in the middle. Roskelde, Zealand; *rare form and extremely fine*. 7¼ x 1¾.

685 Narrow Chisel; chipped, polished edge, nearly square, expanding towards the edge. Found in a marl pit, Jutland; fine. 4¾ x ¾.

686 Celt; flats partly polished, sides polished and very narrow, top nearly pointed. Denmark; of beautiful material and most *rare form*. 5¼ x 1¾

687 Knife or Spear Head; elliptical, with cutting edge on both sides. Funen; very fine, *rare*. 7 x 2½.

688 Celt; described in the Danish invoice as "A chipped implement with sharp sides, thick on the middle and with bowed edge"; perfect, and a *rare form*. Plowed up at Bogense, Funen. 5¼ x 2.

689 An implement shaped somewhat like the last, broad, elliptical, thick in the middle, with cutting edge. Denmark; fine and *very remarkable*. 5¾ x 2¼.

690 Narrow Chisel; chipped, polished edge. Denmark: very fine. $4\frac{5}{8} \times \frac{3}{4}$.

691 Narrow Chisel: chipped. Zealand. $6 \times \frac{7}{8}$.

692 Narrow Chisel; polished. Island of Moen: a symmetrical and beautiful implement. $7\frac{1}{8} \times \frac{5}{8}$.

693 Narrow Chisel; polished. Found by ditching on the little island Thoro; very fine. $5 \times \frac{3}{4}$.

694 Narrow Chisel: chipped, corners carved, top has nearly a cutting edge. Plowed up on the island Samso: perfect. $6\frac{3}{8} \times 1\frac{3}{8}$.

695 Narrow Chisel: chipped, slightly twisted form. Skanderborg, Jutland. $6 \times \frac{7}{8}$.

696 Narrow Chisel; polished, head square. Denmark: very fine. $4\frac{1}{2} \times \frac{3}{4}$.

697 Narrow Chisel; chipped and polished. Plowed up at Odense, Funen; very fine. $6\frac{1}{2} \times 1$.

698 Narrow Chisel; of uncommon size, chipped, corners carved, expanding towards the top. Denmark: very fine. $9\frac{3}{4} \times 1\frac{1}{4}$.

699 Narrow Chisel: chipped, edge polished, top has nearly a cutting edge. Sweden; very fine. $5\frac{3}{4} \times 1\frac{1}{8}$.

700 Narrow Chisel; flats polished, sides chipped, expanding in the middle. Plowed up at Bogense, Funen; very fine indeed. $6\frac{1}{2} \times \frac{7}{8}$.

701 Narrow Chisel: chipped, narrowing towards the point. Odense, Funen. $4\frac{3}{4} \times \frac{3}{4}$.

702 Narrow Chisel: polished flats, chipped sides. Sweden: fine. $3\frac{1}{2} \times \frac{1}{2}$.

703 Gouge; chipped, sides expanding. Denmark. $5\frac{3}{4} \times 2$.

704 Gouge; chipped, corners carved, of beautiful dark flint, top oblong, sides expanding. Zealand: very fine. $6\frac{1}{4} \times 2\frac{1}{2}$.

705 Gouge; flats polished, top square, sides expanding. Slagelse, Zealand: very fine. $6\frac{1}{2} \times 2\frac{1}{4}$.

706 Gouge; chipped, corners carved, fine chipped edge. Found in cutting turf, Jutland: perfect. 7×2.

707 Gouge; flats and sides polished, top square. Slagelse. Zealand; very fine. 7×2.

708 Gouge; flats and sides polished, head square. Norway: very fine. $4\frac{1}{4} \times 2$.

709 Gouge; chipped, oblong top. Denmark: fine. $4\frac{1}{2} \times 2\frac{1}{4}$.

710 Flint implement; one side nicely finished, edge slightly curved; a curious cutting tool, can hardly be called a Gouge. Nestved, Zealand. $4\frac{3}{4} \times 2\frac{1}{4}$.

711 Gouge ; chipped, top oblong. Frederickshorg, Zealand : fine. 4¼ x 2.

712 Gouge ; polished, edge chipped. Kaiser, Zealand ; beautiful material and finely wrought, *rare*. 7¼ x 1½.

713 Gouge ; chipped. Denmark ; dark mottled flint, very fine. 5¼ x 2¼.

714 Gouge ; of unusual form, the sides parallel for about half its length, chipped. Sweden ; fine, *rare*. 5½ x 2¼.

715 Gouge ; polished, head square. Sweden : fine. 4¼ x 2.

716 Gouge ; polished, top oblong. Russia ; fine, *rare*. 6½x2½.

717 Implement with broad gouge-like cutting edge ; singular form. Denmark. 3¼ x 2¼.

718 Implement with sharp, cutting edge, found by ditching on Island Langeland ; fine. 3¼ x 1½.

DAGGERS, KNIVES, SPEAR HEADS, LANCES, ETC.

Among the objects here described are specimens of most of the forms peculiar to the North of Europe. For beauty of form and delicacy of workmanship these cannot be excelled. No such collection has ever been offered for sale in this country, and it would be very difficult to match many of them abroad. For those who are familiar with similar objects, no account of the beauty of the workmanship is required ; to those who are not thus familiar, it is not easy to convey an adequate idea of its perfection. The material is true flint of rich and variegated colors, the different examples showing nearly all shades from black to white.

719 Lance Head ; beautifully wrought. Denmark. 6½ x 1¼.

720 Lance ; edge curved, somewhat serrated. Denmark ; very fine. 7¼ x 1½.

721 Dagger ; with short handle. Sweden ; very fine. 8½x1½.

722 Flat Lance Head ; expanding in the middle. Plowed up at Odense, Funen ; very fine. 6 x 1¾.

723 Elliptical Knife. Viborg, Jutland ; very fine indeed. 7 x 1½.

724 Thin, flat Spear Head ; elliptical, with base elongated, less than one-fourth inch in thickness. Denmark ; very fine indeed. 8 x 1½.

725 Spear Head or Lance ; both ends pointed. Vordingborg, Zealand ; very fine. 7 x 1½.

726 Spear Head ; thin, sides nearly parallel. Denmark ; very fine. 6½ x 1¼.

727 Lance Head or small Dagger; contracted base. Denmark; fine. 5 x ¾.

728 Spear Head; curved edges. Denmark; fine, and of elegant material. 4¼ x ¾.

729 Spear Head; of uncommon form, base contracted, a particle gone from the point. Randers, Jutland; very fine. 5 x 1.

730 Spear Head; sides parallel for about one-half its length. Island of Moen; very fine. 7¼ x 1¼.

731 Broad Dagger; with handle, base enlarged. Norway: very fine. 6½ x 1⅜.

732 Lance Head; elliptical, thin. Jutland: very fine. 7¼x1⅜.

733 Small Dagger. Faxe, Zealand: very fine. 5½ x 1.

734 Dagger; yellowish flint. Fredericksund, Zealand: very fine. 5¾ x 1.

735 Thin Dagger. Denmark; very fine. 4¾ x 1.

736 Thin Dagger: flint, curiously marked. Denmark: very fine. 5¼ x 1¼.

737 Semi-lunar Knife; of large size, the inner edge straight. Denmark; very fine. 7 x 1½.

738 Semi-lunar Knife; much curved, exquisitely wrought. Jutland. 5¼ x 1¼.

739 Semi-lunar Knife; the inner edge serrated. Denmark; very fine. 4 x 1¾.

740 Semi-lunar Knife. Denmark; perfect. 5 x 1⅝.

741 Oval Knife; a little curved. Denmark: very fine. 3½ x 1½.

742 Lance Head; elliptical, thickened at base. Denmark; very fine. 5 x 1¼.

743 Lance Head or Knife; elliptical, one end truncated, thin. Denmark: perfect. 4⅜ x 1⅜.

744 Spear Head; approaching the dagger-shape, a rare form. Randers, Jutland: perfect. 6¼ x 1¼.

745 Spear Head or Knife: elliptical. Denmark; very fine. 5¾ x 1¼.

746 Lance; of uncommon form, base rounded. Found in turf cutting at Viborg, Jutland. 4 x 1⅜.

747 Spear Head; curved. Ballerup, Zealand: fine. 4¼ x 1.

748 Small Dagger or Spear Head. Denmark: very fine; 4¼ x ⅞.

749 Lance Head: with notched base, in shape closely approaching some Western forms. Denmark: very fine. 4¾ x 1⅜.

750 Implement similar to the last, called by the Danish dealer a Flat Arrow Head, with hooks at the ends. Island Ouro; perfect, and a most rare form. 8¾ x 1¼.

751 Small Dagger; with square handle. Denmark: very fine. 4¼ x ¾.

752 Spear Head; rounded base, curved. Denmark: fine. 4 x 1.

753 Elliptical Knife. Denmark: rare form, fine. 5 x 1¼.

754 Spear Head; hollowed base. Denmark; very fine. 5½ x 1.

755 Lance Head. Denmark: very fine. 5¾ x 1.

756 Semi-lunar Knife; of large size. Roeskilde, Zealand 6¼ x 2.

757 Semi-lunar Knife. Denmark: very fine indeed. 4½x1¼.

758 Semi-lunar Knife. Denmark; fine. 4½ x 1¼.

759 An object called a Great Arrow Head, but resembles the form usually called an Oyster Knife. Denmark: fine, *rare*. 4¾ x 1¼.

760 Dagger or Spear Head; handle slightly curved. Denmark; fine. 7¼ x 1¼.

761 Immense Lance; unusually thick in the middle. Plowed up at Nyborg, Funen; very fine. 9½ x 1¼.

762 Thin Lance; broad and of uncommon form, edge serrated. Denmark: very fine. 7½ x 1¼.

763 Dagger; with handle expanding at the end. Denmark: perfect, *rare*. 7½ x 1¼.

764 Lance; thin and broad. Viborg, Jutland; very fine. 7¼ x 1¼.

765 Dagger; with handle. Copenhagen: perfect, *rare*. 6¼ x 1¼.

766 Elliptical Knife or Lance Head. Denmark: extremely fine. 7¼ x 1¼.

767 Spear Head; slightly curved. Denmark: fine. 7x1¼.

768 Semi-lunar Knife; much curved. Denmark; slightly defective, still very fine, a *rare form*. 5 x 1¼.

769 Semi-lunar Knife, much curved, end pointed. 4¾ x 1¼.

770 Lance. Denmark: fine. 5¼ x 1¼.

771 Dagger, handle quadrangular, carved. Fredericia, Jutland. 5½ x 1¼.

772 Dagger or Spear Head. Denmark; very fine. 6¼ x 1.

773 Lance; unusual form, narrow from the middle towards the point, a little polished on both sides. Plowed up at Bogense, Funen. 6 x 1.

774 Flint Knife: flaked, triangular. Denmark. $4\frac{3}{4}$ x $1\frac{1}{4}$.

775 Curved Flint Flake or Knife; shows marks of use. $3\frac{7}{8}$ x $\frac{5}{8}$.

776 Sharp-edged flaked Flint Knife. Denmark: fine. $4\frac{1}{4}$x$\frac{3}{4}$.

777 Flaked Flint Knife: curved. Nestved, Zealand: sharp, fine. $3\frac{1}{4}$ x 1.

778 Delicate flaked Flint Knife; sharp. Slagelse, Zealand. $4\frac{1}{2}$ x $\frac{7}{8}$.

779 Spear Head: patinated, showing marks of great antiquity. Zealand: very fine. $5\frac{1}{2}$ x 1.

780 Flaked Flint Knife; of large size, perfect. Viborg, Jutland. $5\frac{1}{4}$ x 1.

781 Spear Head. Ballerup, Zealand: fine. $4\frac{1}{2}$ x 1.

782 Lance. Roeskilde, Zealand; fine. $5\frac{1}{2}$ x $1\frac{1}{8}$.

783 Lance. Svendborg, Funen. $4\frac{5}{8}$ x 1.

784 Flint flaked Knife; thick, triangular. France: *rare*. $5\frac{1}{8}$ x $1\frac{1}{4}$.

785 Large and very fine flaked Flint Knife. Assens, Funen: very fine. $6\frac{5}{8}$ x 1.

786 Lance; of silicious stone, unlike in material any other that I have met with from the North of Europe. Denmark: point broken and cemented, very fine. $4\frac{3}{4}$ x $1\frac{1}{2}$.

787 Lance; base contracted and thin, unusual form. Viborg, Jutland; very fine. $5\frac{1}{2}$ x $1\frac{1}{8}$.

788 Semi-lunar Knife: mottled flint. Denmark: very fine. 3 x $1\frac{1}{4}$.

789 Curved Elliptical Knife: one side flaked, the other chipped and a little polished, *a most rare* example. Denmark. $4\frac{3}{4}$ x $1\frac{1}{4}$.

790 Harpoon: notched base and barbed. Island of Samso: fine and *very rare*. $4\frac{1}{4}$ x $1\frac{3}{8}$.

791 Lance: narrowing from the middle. Jutland: fine. $4\frac{1}{2}$ x 1.

792 Spear Head or small Dagger. Denmark; very fine. $2\frac{7}{8}$ x $1\frac{1}{8}$.

793 Great Arrow Point. Denmark: fine, *rare*. $3\frac{1}{2}$ x $\frac{7}{8}$.

794 Semi-lunar Knife; with one straight, finely-chipped edge. Jutland: very fine indeed. $3\frac{1}{2}$ x $1\frac{1}{4}$.

795 Flint Flake or Knife; much worn by use. Denmark. $3\frac{1}{2}$ x $\frac{3}{4}$.

796 Little Dagger or Lance. Roeskilde, Zealand: fine, *rare*. $4\frac{3}{4}$ x 1.

797 A great Arrow Head. Denmark: fine and *extremely rare*. 3½ x 1½.

798 Spear Head. Norway; very fine. 3¾ x 1½.

799 Rude quadrangular Arrow Point. Nestved, Zealand; *extremely rare*. 3¼ x ½.

800 Long Lance; beautiful water-ripple chipping from Keller's Moor, Kive, Jutland; one of the finest pieces in the sale. 8½ x 1½.

801 Dagger-shaped Lance; broad in the middle, contracted to a handle. Denmark; very fine. 7½ x 1½.

802 Elliptical Knife; a fragment broken from one edge. Zealand; very fine. 7¼ x 1¼.

803 Dagger; handle enlarged at the end. Denmark. 5½x1¼.

804 Oyster Knife. Denmark; of great antiquity, fine. 6x1½.

805 Lance; with newly chipped stem. Zealand; fine. 6x1½.

806 Lance; with rounded base. Jutland; very fine. 6½x1¼.

807 Small Dagger. Denmark. 5½ x 1.

808 Flat Lance; with rounded point, partly polished. From a tumulus, Jutland; a *rare form* and very fine. 6x1¼.

809 Short Dagger. Denmark; fine. 5¼ x 1½.

810 Oyster Knife; natural perforation near the point. Denmark; fine and remarkable. 5¼ x 1½.

811 Semi-lunar Knife. Denmark; thin, very fine. 6 x 1½.

812 Semi-lunar Knife; natural cavity on one side. Denmark; very fine. 4⅞ x 1½.

813 Semi-lunar Knife; with points rounded. Jutland; fine. 3¼ x 1.

814 Semi-lunar Knife; very small, inner edge somewhat serrated. Jutland; fine and *of such dimensions very rare*. 2¾ x ¾.

815 Poniard; with quadrangular handle. From a moot in Jutland; fine, *rare*. 5 x 1.

816 Large, thin, chipped Lance; narrowing from the middle to the point. From a little tumulus, Assens, Jutland; very fine. 5 x 1¼.

817 Lance; edge serrated. Denmark; fine. 4¼ x 1.

818 Harpoon; with rounded base. Nyborg, Funen. 3½x1¼.

819 Elliptical Knife; one end truncated. Denmark; fine. 4 x 1¼.

820 Harpoon; rounded base. Denmark. 4 x 1½.

821 Semi-lunar Knife, sometimes called a Skin Scraper; edge serrated. From a marl bed, Funen. 3½ x 1.

ARROW POINTS.

These objects, which outnumber at least ten to one all the other stone relics found in the United States, are amongst the rarest of European forms. In three collections from the North of Europe, numbering at least two thousand pieces, only about a dozen arrow points were found; a large proportion of the following are from Ireland, and they were so highly prized by the Danish dealer who sent them over, that he illustrated each one with an accurate and elegant drawing. The Danish triangular point, in form resembling a three-cornered file, is perhaps the rarest variety; four specimens from this cabinet sold with the Woolley Collection, brought no less than $20. The following lot is remarkably complete, as illustrating most of the known forms, some of which it would be very difficult to duplicate.

822 Great Arrow Point. Plowed up at Fredericia, Jutland: perfect. $3\frac{5}{8}$ x 1.

823 Great Arrow Point: leaf-shape, with square base. Denmark; perfect. 3 x 1.

824 Harpoon: with barbs. Found in cutting turf, Sinding, Jutland; very fine and *rare*. 3 x $1\frac{3}{8}$.

825 Great Arrow Point: edges sharp and serrated, base contracted. Plowed up at Ladby, Funen; perfect. $3\frac{1}{2}$ x $1\frac{1}{4}$.

826 Great Arrow Point; leaf-shape. Found at the water's edge, Kolding, Jutland; perfect. $4\frac{1}{8}$ x $1\frac{1}{8}$.

827 Great Arrow Head: nearly elliptical, slightly contracted towards the base. Herning, Jutland: very fine. $3\frac{5}{8}$ x $1\frac{1}{8}$.

828 Great Arrow Head: dagger-shape, twisted in the form that we call rotary. Denmark: perfect, most *rare*. 4 x 1.

829 Great Arrow Point: leaf-shape. Found in cutting turf, Veiby, Funen: perfect. 4 x $1\frac{1}{8}$.

830 Triangular Arrow Point: file-shape, stemmed, serrated on two angles. Found by ditching, Aalborg, Jutland: perfect and *excessively rare*. $3\frac{1}{2}$ x $\frac{1}{2}$.

831 Triangular Arrow Point; stemmed, serrated or toothed on all the angles. Plowed up at Hobeo, Jutland: perfect and *very rare, the finest in the sale*. $3\frac{1}{2}$ x $\frac{1}{2}$.

832 Triangular Arrow Point: rudely finished, but perfect. Narteley, Zealand. $3\frac{1}{4}$ x $\frac{1}{2}$.

833 Triangular Arrow Point: stemmed, serrated, flat. Stege, Island of Moen; fine. $2\frac{7}{8}$ x $\frac{1}{2}$.

834 Triangular Arrow Point; stemmed, serrated, a particle gone from the point. Aarup, Funen: very fine. 1¼ x ½.

835 Triangular Arrow Point; stemmed, serrated, and slightly curved and rotary. Bogense, Funen: very fine. 2¼ x ¾.

836 Triangular Arrow Point; stemmed, two edges serrated. Denmark; *about equal to No. 831 in quality.* 3½ x ¾.

837 Triangular Arrow Point; stemmed, serrated. Denmark; *extremely fine.* 2½ x ¾.

838 Triangular Arrow Point; without stem, small size. Funen; fine, *very rare.* 1½ x 1¼.

839 Triangular Arrow Point; stemmed, curved, one angle flattened. Denmark; *very rare form.* 1¾ x ¾.

840 Arrow Head; rounded point, base deeply notched, leaving barbs ⅜ in. in length. Denmark; *a beautiful example and most rare.* 1¼ x ⅝.

841 Arrow Head; triangular, pointed, base deeply notched, forming barbs half an inch in length, one of the barbs broken off, but no part missing, and can be easily repaired, so that the injury will not appear. Denmark; *extremely rare.* 1⅞ x ¾.

842 Barbed Arrow Point; of white flint, base hollowed. Denmark; a perfect example, and *rare.* 1¼ x ¾.

843 Arrow Point; of light flint, oval in outline, with base deeply indented, forming long barbs curving inward. Denmark; *a beautiful and most rare example.* 1 x ⅝.

844 Triangular Arrow Point, resembling the American War Points; thick in the middle, with thin base, slightly curved. Plowed up at Nottrup, Jutland. 1¼ x ¾.

845 Leaf-shaped Arrow Point; minute fragment gone from the point. Svendborg, Funen; very fine. 1⅝ x ⅝.

846 Arrow Point; elliptical, with indented base, barbed. Denmark; perfect, *extremely rare form.* 1½ x ⅝.

847 Arrow Head; barbed, leaf-shape, with indented base. Bogense, Funen; very fine. 1⅝ x ⅝.

848 Arrow Point; long, pointed, base indented and with barbs. Jutland; very fine. 1¾ x ⅝.

849 Drill-shaped Arrow Point. Denmark; perfect, *rare form.* 1⅝ x ⅝.

850 Harpoon; with indented base, forming blunt barbs. Falster; very fine.

851 Arrow Head; triangular, stemmed, barbed, a fragment gone from one barb. County Down, Ireland; very fine, *rare.* 1¾ x ⅝.

852 Arrow Head: somewhat drill-shaped, widening near the base, which is rounded. County Down, Ireland: *rare form*, perfect. $1\frac{1}{2}$ x $\frac{7}{8}$.

853 Arrow Head: barbed, base thin and deeply indented. County Down, Ireland: fine, *very rare*. $1\frac{5}{8}$ x 1.

854 Arrow Head: with long barbs, one barb unfortunately broken. County Down, Ireland; very fine. $1\frac{3}{4}$ x $\frac{5}{8}$.

855 Arrow Head; barbed and stemmed, partially serrated, one barb defective. Armagh, Ireland; very fine. $1\frac{3}{8}$ x $\frac{3}{4}$.

856 Arrow Head; triangular, with hollowed base. Armagh, Ireland. $1\frac{1}{2}$ x $\frac{7}{8}$.

857 Arrow Head; barbed, serrated, base with curved indentation. Tyrone, Ireland; fine. $1\frac{1}{2}$ x $\frac{7}{8}$.

858 Arrow Head; triangular, stemmed, with long barbs bending inward, one barb broken. Armagh, Ireland; fine. $1\frac{1}{4}$ x $\frac{7}{8}$.

859 Arrow Head: triangular, barbed and stemmed. Tyrone, Ireland: broken. $1\frac{3}{4}$ x $\frac{7}{8}$.

860 Triangular Arrow Point: indented base. Tyrone, Ireland; fine. $1\frac{3}{4}$ x $\frac{7}{8}$.

861 Leaf-shaped Arrow Head; very thin and slightly curved. Armagh, Ireland; perfect. $2\frac{3}{4}$ x 1.

862 Arrow Point: with pointed base. Tyrone, Ireland: very fine. $1\frac{5}{8}$ x $\frac{5}{8}$.

863 Arrow Head; triangular, elongated, base indented. Tyrone, Ireland: perfect. $1\frac{3}{4}$ x $\frac{3}{4}$.

864 Arrow Head; stemmed, barbed, one barb broken. Armagh, Ireland. $1\frac{1}{4}$ x $\frac{5}{8}$.

PERFORATED HAMMERS AND AXES.

These objects are peculiar to the Eastern Continent, nothing analogous to them that I am aware of, having been found on this side of the Atlantic; the nearest approach in form is found in some of the Banner Stones, but the resemblance is by no means striking, and while it is tolerably certain as shown by their small size, high finish, and frail material, that the Banner Stones were used for ornament or ceremony, it is obvious from their size and construction, that these hammers and axes were intended for more substantial use. Most of those designated as hammers have a flat or rounded head, and at the opposite extremity a cutting edge parallel with the perforation; though as substantially made as the material allows, it is plain that they never could have been put to very severe use.

but as weapons were most formidable, their probable use suggests the name of Hammer-Axe, which I have ventured to apply to them. The series following is selected with the design of shewing not only the different forms and materials of the implement when perfected, but the different stages of its manufacture and occasional re-working.

865 Hammer-Axe; head rounded, perforation above the centre; 1¼ in. diameter. Ringsted, Zealand: very fine, showing marks of great antiquity. Of the rarity of all under this head, it is sufficient to say that they are rare abroad and in American collections almost unknown. 8 x 3½.

866 Hammer-Axe: granite, square head, perforation very large, nearly 1½ in. in diameter and near the centre: flats partly polished. Denmark: very fine. 6¼ x 2¼.

867 Hammer-Axe: triangular, perforation large and near the centre; though the substance is not disintegrated, the original surface is entirely gone, possibly by the action of water continued through a long period. Holbak, Zealand. 5 x 3.

868 Hammer-Axe: granite, perfectly wrought, except the perforation which is only commenced at one side and carried to the depth of half an inch: the hole is exactly hemispherical, showing that it was formed by a round-pointed drill, the head a trifle imperfect, but very fine. Denmark. 8¼ x 2¼.

869 Hammer-Axe: granite, originally of large size and excellent finish, broken at the perforation, the head re-finished and a new perforation commenced from both sides. Plowed up at Horsens, Jutland. 6¼ x 1½.

870 Hammer-Axe: granite, of great size, edge broken as the invoice remarks, "in the antiquity": finely wrought, but the perforation not commenced. Denmark. 9½ x 2½.

871 Battle-Axe: of *rare form*, expanding to the middle, contracting towards the ends, and again expanding at head and edge, curved inward, perforation only commenced. Aasens, Funen: very ancient and fine. 7½ x 1¾.

872 Hammer-Axe; rounded head, perforation carried through from each side, but not finished, tapering from 1 in. at the opening to ¾ in. at the middle. Skive, Jutland, fine, very ancient. 5½ x 2¼.

873 Hammer-Axe: granite, expanding to the middle, has large perforation, a piece chipped from one flat. Denmark; fine. 6¼ x 2¼.

874 Battle-Axe; long, curved inward, inner side concave, expanding at the perforation, head contracted to a diameter of less than an inch. Zealand: a perfect and beautiful implement of *rare form*. 5½ x 1¾.

875 Battle-Axe: broadly expanded at the perforation, head contracted to less than an inch, edge expanding from both sides. Denmark: a *rare* and graceful form, perfect. 6¾ x 2¼.

876 Hammer: of fine grained dark stone, rounded, of small size. Denmark. 4 x 2.

877 Hammer: perforation near the head, slightly curved, the inner side concave. Denmark: very fine. 5⅜x1⅝.

878 Hammer: sandstone, curved, rounded, expanded at the perforation, head rounded and contracted to ⅝ in. in diameter, *rare form*. Dug from a marl pit in Fnnen: *very fine indeed*. 5 x 2.

879 Small Hammer: broken at the perforation near hole, commenced from both sides. Zealand. 3¼ x 1½.

880 Hammer: sandstone, small perforation, head narrow and round. Zealand; very fine. 5 x 1½.

881 Small Hammer-Axe: granite, triangular, with flats rounded. Norway. 3⅞ x 2.

882 Hammer: in form somewhat elliptical, broad at the perforation, sharply contracting towards the head. Denmark: fine. 3⅞ x 2.

883 Hammer-Axe: granite, finely made, but shows great age, triangular, perforation near the head, sides regularly expanding towards the edge. Nestved, Zealand: fine. 5 x 2½.

884 Hammer; in shape somewhat rhomboidal, curving inward, and the flats curving inwards towards each end; head oval, head and edge expanding. Skive, Jutland: fine, of *rare form* and perfect. 4½ x 2.

885 Hammer: of dark hornblend rock, rhomboidal. Denmark; very curious, as showing the process of finishing or enlarging the perforation in the middle, perfect. 4½ x 1⅞.

886 Hammer: hornblende, long, with rounded head, the inner side slightly concave. Nestved, Zealand: fine. 6 x 1⅞.

887 Hammer: hornblende, rhomboidal, with rounded head, perforation smaller in the middle, one side is marked with seven straight lines: whether they are ancient or not I cannot say. Roeskilde, Zealand; fine. 4⅜x1⅞.

888 Hammer; of dark basaltic rock, flats curving inwards towards the head and edge, sides expanding below the opening and again contracting towards the edge. Denmark; very fine indeed and a *rare form*. 4¼ x 1⅝.

889 Battle-Axe, approaching in form the variety called the Amazon Axe or Hammer; much curved, head oval, edge broadly expanding, originally polished. Zealand; very fine and a *rare form*. 6 x 2.

890 Battle-Axe: sandstone, elliptical, perforation nearly 1¼ in. in diameter through an implement 1¾ in. wide. Denmark; perfect and *rare*. 5 x 1¼.

891 Hammer; curving inward from the opening, where it is much enlarged, both sides concave. Denmark: both head and edge a little broken, still very desirable. 5⅞ x 2.

HAMMERS AND CELTS.

892 Hammer; of granite, nearly square, sides expanding from the head to the edge, a groove extending all round somewhat above the middle, head square. Though widely differing from the American grooved axe, approaches it more nearly in form than any object that I have seen from Europe. Bridlington, Yorkshire, England; very fine and *exceedingly rare*. 6¼ x 3.

893 An implement of granite, described in the invoice as "a wedge with handle," in form suggesting the grooved axe; flats rounded, sides concave, expanding towards the edge. Viborg, Jutland; fine and *very rare*. 6½ x 2½.

894 An implement in form like the last but of finer workmanship, the flats polished. Sweden; fine and *very rare*. 7¼ x 2⅝.

895 Granite Celt; flats rounded, sides square, expanding towards the edge, head oblong. Denmark; of much greater rarity than the implements of flint. 10½ x 3¾.

896 Granite Celt; flats rounded, sides concave, head thin, contracted almost to an edge. Odense, Fünen; perfect. 9¼ x 3¼.

897 Fine Granite Celt; in form resembling the last, top thin. Plowed up at Ribe, Jutland; very fine, has been polished. 9¼ x 3½.

898 Granite Celt: nearly round, head nearly pointed, bears a very close resemblance to some American implements, surface disintegrated, evidently of great age. Zealand: perfect. $7\frac{1}{4} \times 1\frac{7}{8}$.

899 Granite Celt: oval. Denmark; very ancient. $4\frac{3}{4} \times 2\frac{1}{2}$.

900 Granite Celt: round, sides expanding. Plowed up in Jutland; very ancient, fine. $5\frac{3}{4} \times 2\frac{1}{8}$.

901 Granite Celt: oval, edge polished. Denmark: very fine. $7 \times 3\frac{1}{4}$.

902 Granite Celt: head broken by use. Skive, Jutland: fine. $6 \times 2\frac{5}{8}$.

903 Celt, County Tyrone, Ireland: rude, *very rare*. $7 \times 3\frac{1}{8}$.

904 Celt, Lough Neagh, Ireland: of fine workmanship and polished, but a little imperfect. $5\frac{1}{2} \times 3$.

905 Granite Celt; with perforation near the head. Plowed up in Jutland; fine; *perforated celts are very rare*. $4\frac{3}{4} \times 2\frac{1}{2}$.

906 Perforated Celt; granite, head a little broken. Jutland: very fine. $4\frac{1}{2} \times 2\frac{3}{8}$.

907 Celt; oblong, sides nearly parallel, head thin. Denmark. $4\frac{3}{4} \times 2\frac{1}{4}$.

908 Celt; flats rounded, sides scarcely more than an edge, edge broadly expanded, head pointed, bears a striking resemblance to similar objects from the West Indies. Armagh, Ireland; fine, *rare*. $5\frac{3}{4} \times 2\frac{1}{2}$.

909 Celt; same form as the last. Antrim, Ireland; fine. $4 \times 2\frac{1}{8}$.

910 Celt; same general form, head broken. County Down, Ireland. $4 \times 2\frac{1}{8}$.

911 Celt, Armagh, Ireland; fine, *rare*. $5 \times 2\frac{3}{8}$.

912 Celt, Lough Neagh, Ireland; head and edge a little chipped, *rare*. $5 \times 2\frac{3}{4}$.

MISCELLANEOUS.

913 Hatchet or Chisel; of diorite, set in a buckhorn socket for hafting. From the Lake Dwellings of Switzerland: *very rare*.

914 A similar object of smaller size, set in the same manner: *very rare*.

915 Flint Axe, Porton, France; paleolithic, *very rare*. $4 \times 2\frac{5}{8}$.

916 Sling Stone; flats rounded, sides concave, elliptical, ends nearly pointed. Why this curious object is called a sling stone it is difficult to say: an illustration may be found in Nilsson's "Primitive Inhabitants of Scandinavia," and another in "Guide to Northern Archæology, London, 1848." From a hill at Bogense, Funen; perfect and *rare*. 3¼ x 1½.

917 Sling Stone; this is invoiced by a dealer as "a hone stone"; elliptical, flats concave, groove extending entirely around. Jutland; perfect. 3¼ x 1¼.

918 Sling Stone; elliptical, one flat hollowed and half an inch shorter than the other, groove extending entirely around. Denmark; the finest in the collection. 5¼ x 1½.

919 Tool Stone; wedge-shape and doubly perforated at the head, in form a small square celt, by some supposed to have been suspended about the person and carried for the purpose of sharpening needles; this supposition may be correct, but it is perhaps not altogether probable. Denmark; perfect and *rare*. 2¼ x ½.

920 Tool Stone; much like the last, but thin, (the other is square,) being worn to half its original thickness. Denmark; very fine. 2½ x ½.

921 Oval Granite Stone; grooved round the centre, invoiced as a "Sink Stone." Zealand; perfect. 3¼ x 2¼.

922 Sink Stone; of granite. Plowed up at Hirsens, Jutland; perfect. 3¼ x 2¼.

923 Circular stone with deep indentations on opposite sides. Jutland; very fine. Diameter 2¼ in.

924 A similar object, invoiced as a "Chip Stone," but so perfect in form that it could hardly have been used as a hammer. Plowed up at Skive, Jutland; perfect. Diameter 2 in.

925 A similar stone, with perforation extending through, found with the last; perfect. Diameter 3 in.

926 A similar object of smaller size, perforated. Skive, Jutland; perfect. Diameter 2¼ in.

927 The same, perforated. Denmark; perfect. Diameter 1¾ in.

928 Spin Stone; flat, with concentric ornaments on both sides. Jutland; very fine and scarce. Diameter 1¼ in.

929 Spin Stone; with nearly half inch perforation, flat, with circular groove on one face. Denmark; fine; scarce. Diameter 1½ in.

930 Spin Stone; conical, with top truncated, the circumference ornamented with parallel grooves. Denmark. Dia. 1½.

931 Spin Stone: flat, with small perforation. Denmark: perfect. Dia. 1⅜.

932 Spin Stone; one face and the circumference grooved for ornament, large perforation. Nyborg, Funen: perfect. Dia. 1¼.

933 Spin Stone; flat. Denmark: fine. Dia. 1½.

934 Spin Stone: of jasper, flat and not quite circular, large perforation. Denmark; perfect. Dia. 1½.

935 Spin Stone: flat, thin, small perforation. Denmark: perfect. Dia. 1⅜.

936 Spin Stone; very small, ornamented in the style of 932. Veile, Jutland; perfect. Dia. ⅞.

937 Spin Stone; same style as the last. Jutland; perfect. Dia. 1.

938 Bead-shape Spin Stone: small perforation and handsomely finished; plowed up at Funen; perfect. Dia. 1½.

939 Whetstone or Rubbing Stone: used for polishing flint implements, nearly square, one end rounded, the four sides worn smooth and hollowed by long continued use. Denmark; very fine. 2¼ square and 5 long.

940 Whetstone: of unusual form, fitted to hold in the hand; the ends were used probably for polishing the insides of gouges: found in a marl bed. Jutland: fine, extremely rare. Dia. 2, length 6½.

941 Whetstone; of convenient form for holding, of mica slate of sharp cutting grain. Denmark: fine. 4¾x2.

942 Immense Whetstone: used for polishing large implements. Jutland: nearly square, gradually tapering from one end to the other: at the large end 4½ x 3½, length 14.

943 Whetstone; for polishing large celts, the face concave from long use, triangular. Zealand. 16 x 9½.

944 Celt: jadeite, flats convex, edge extending far up on each side, top pointed. Danish West Indies, Island of Santa Cruz: of symmetrical form, beautiful material and highly polished, a little imperfection in the stone on one flat and at the top: this form of celt appears to be peculiar to the West Indies and the southern coast of the United States. 6¾ x 2⅝.

945 Celt: like the last and equally fine. Santa Cruz; *rare*. 3½ x 1¾.

946 Celt; same form and workmanship, but different material. Santa Cruz; very fine. $3\frac{1}{4} \times 1\frac{1}{2}$.

947 Celt; similar in form to the preceding, but lacks the peculiarity of the lateral extension of the sharp edge: light sandstone, said to be West Indian, but doubtful; very fine. $6\frac{1}{2} \times 2\frac{1}{4}$.

948 Celt; flats and sides rounded, of beautiful reddish variegated stone. West Indies: polished and perfect. $2\frac{1}{4} \times 1\frac{1}{3}$.

949 Celt; material much like the last, oblong, top thin. West Indies; highly polished and perfect. $2\frac{1}{2} \times 1\frac{1}{4}$.

950 Celt; similar in form to the preceding; said to be West Indian; edge a trifle chipped; very fine. $3 \times 1\frac{1}{4}$.

951 Celt, West Indies; nearly round, the surface pecked except the surface of the edge, which is polished: jasper; very fine. $3\frac{1}{4} \times 1\frac{1}{4}$.

952 Plumb-Bob; diameter in the middle $1\frac{1}{4}$, curved inward and tapering towards the ends, one of which is grooved. Santa Cruz, W. I.; of beautiful green stone, perfectly symmetrical, and highly polished. length $3\frac{1}{4}$.

953 Plumb-Bob; nearly globular, with knob at one end and similar projection at the other. West Indies: beautiful mottled stone, polished and perfect; *very rare*. Diameter $1\frac{1}{4}$, length $1\frac{1}{2}$.

954 Sling Shot; white quartzite from the Marquesas Islands; polished and perfect, one end perforated and attached to a string and handle nearly four feet in length, made of grass fibres of wonderful strength. $3\frac{1}{2} \times 1\frac{1}{2}$.

BEADS.

The following lots to No. 960 inclusive were all dug up in different localities in Jutland, and the seven succeeding ones are from Fanoe. those of stone are doubtless of native workmanship. Concerning those of glass, Nilsson remarks — "Glass beads of a very rude manufacture are sometimes found in the old Scanian bogs, and in gallery-graves. The hole in them is not drilled, but has been either blown, or made by passing some hard instrument of metal or burnt clay through the molten mass, and there is no other trace of grinding than that the edge, projecting round the hole on one side, has been ground away.

"They thus show us the infancy of the art of glass-blowing; but yet it is scarcely to be supposed that they could have been fabricated by the

same people who made use of axes and chisels of stone. They must be referred, undoubtedly, to some foreign nations who had commercial intercourse with the savage aborigines of Scandinavia, and who bartered their glass beads and similar wares for amber, furs, and other produce."

955 Bead: of glass, formed apparently of pieces of square rods, all radiating from the centre of the bead, and each composed of five concentric layers of glass of different colors: these are symmetrically arranged and the interstices filled with black and yellow glass. This bead, the surface of which is decomposed owing to its great age, shows that the ancients had reached a very high degree of perfection in the manufacture of ornamental glass: a little chipped, by design probably to show the internal appearance: *extremely rare*. Dia. 1¼ in.

956 Bead: of stone, as perfect as could be turned in a lathe: *extremely rare*. 1½.

957 Bead; quartz, small but perfect perforation, perfectly globular; *very rare*. 1.

958 Bead: of flint or agate; very fine. 1.

959 Bead: agate, perfect. ¾.

960 Bead: black stone, the surface ornamented with circles of red and white, that surrounding the middle of the stone quite elaborate in design: very fine. *rare*. ¾.

961 Bead: appears to be made from bog iron ore: elongated: very fine. ¾.

962 Bead: transparent quartz: perfect. *very rare*. ⅝.

963 Bead: of yellowish stone: perfect. ⅝.

964 Bead; appears to be ivory: very fine. ⅜.

965 Bead or Ring: thin, with large perforation; jadeite, perfect and *rare*. 1¼.

966 Beads: of green glass, each one ornamented on the outer edge with three bosses of white glass: fine examples of the work referred to above. ¾ and ⅝. 2 pieces.

967 Bead: glass, formed by winding a flattened cylinder upon itself: green, very fine. ⅞.

968 Bead: of stone, has one line of ornamentation similar to that on No. 960. ¾.

969 Beads: one of green glass, star shape, one of white stone beautifully marked with red, and one of dark stone, surrounded by ornamental carving: a fine and rare lot. Diameter of each about half an inch. 3 ps.

970 Flat Bead of baked clay: very fine and *rare*. ⅞.

971 Stone Bead; in form of a cross, one side convex and ornamented with deep cut lines; a remarkable example, and *rare*. ½.

972 Bead or Ring Stone; having a large perforation; very fine. ½.

VESSELS OF SOAPSTONE.

973 Dish; of small size, with handle at the end. Ludlow, Mass.; length 7½, width 3½, capacity less than a half pint; perfect, *rare*.

974 Dish; from Conn., very fine, and of capacity about three quarts; length 14 in., breadth 10, height 6; has been broken and repaired with cement, handle at each end; *so fine a specimen is extremely rare*.

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